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OFFICERS OF THE SOCIETY

MRS. JOHN BOZIEVICH, *President*

6810 Hillmead Road, Bethesda, Md. 20034

MRS. ERNEST K. HARDISON, JR., *First Vice President*

1950 Chickering Road, Nashville, Tenn. 37215

QUENTIN E. ERLANDSON, *Second Vice President*

9 Burnbrae Rd., Baltimore, Md. 21204

MRS. MARVIN V. ANDERSEN, *Secretary*

7 Perth Drive, Wilmington, Del. 19803

WELLS KNIERIM, *Treasurer*

31090 Providence Road, Cleveland, Ohio 44124

Executive Director — WILLIAM O. TICKNOR

Tyner, North Carolina 27980

(Tel. 919-221-8388)

All correspondence regarding memberships, change of address, receipt of publications, supplies, ADS records, and other business matters should be addressed to the Executive Director.

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Chairman of Publications

Mrs. Robert Cartwright

1216 Goodloe Dr.

Nashville, Tennessee 37215

(Tel. 615-373-0814)

Editor, Daffodil Journal

Mrs. Paul Gripshover

Rt. 3, 1206 Natchez Road

Franklin, Tennessee 37064

(Tel. 615-790-6202)

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SCHEDULE OF MEMBERSHIP DUES IN THE AMERICAN DAFFODIL SOCIETY

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THE COVER PHOTO

is of Rio Dell 2YW-W (1980) raised by Bill Roese of Santa Maria, California. From Golden Aura \times Daydream, it develops a white halo at the base of the cup and the inside of the cup reverses while the outside retains the lemon color of the perianth until the flower fades. In California in 1978 a three-stem entry won the ADS White, Gold, and Rose Ribbons. It was also shown in a winning Red-White-Blue entry at Descanso. (Roese photo.)

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THE 1980 DAFFODIL SHOWS

MRS. HERMAN L. MCKENZIE, *Jackson, Mississippi*

"It was a very good year," the refrain of a popular Sinatra ballad of yesteryear, is also an excellent description of the 1980 American Daffodil Society show season.

All of the 1980 ADS show reports were up-beat. From Chillicothe, an excellent mid-sized show, Elaine Dunn reported, "All of the flowers were exceptional this year." At Hampton, the 18th annual Tidewater Show, chairman Irene Christian commented, "The overall quality of the flowers in the show was superb." Typical of nearly every show on the 1980 calendar was Mrs. James Caldwell's report from Huntington, "A good daffodil year in this area, and the blooms were well above average."

More daffodils in more exhibits were entered in the thirty 1980 American Daffodil Society shows than in any earlier season in the twenty-five-year history of the ADS. 23,911 blooms were placed on show tables in 13,016 entries, by far the largest number ever in both categories.

The Hampton show, this year also the Mid-Atlantic Regional, was this season's largest with 2,198 blooms, and is the second-largest show ever in ADS records, trailing only the magnificent 1978 Columbus national convention show. New Zealander Phil Phillips said of the Tidewater gathering, "This was the most competitive show I've seen in five years of attending daffodil shows throughout the United States."

Of the thirty ADS shows, one-third had a thousand blooms or more, twice as many shows as usually achieve that number. The Gloucester show, always large, was second in 1980 with 1,708 blooms. Show chairman Ann Dischinger suggests a reason, and a happy result: "Our show, larger than in 1979, was a week later. We had many more daffodils in Divisions 3, 4, and 8; Division 9 was also well-represented."

At Columbus, third with 1,576 blooms, Ruth Pardue exulted over the large, well-filled show tables, "We had three Quinn entries and four entries in three-stems-of-twelve-cultivars." The other top ten shows were the Middle Tennessee Daffodil Society Show in Nashville with 1,407 blooms, the national show in Memphis with 1,377, Indianapolis's 1,091, Atlanta's 1,072, Baltimore's 1,063, and Cincinnati's 999.

Daffodil folks usually worry about the weather, and usually they shouldn't. This year was no exception. At the early-season Southwest Regional Show in Dallas, Myra Bivins commented, "Despite adverse weather—14 degrees on March 1, 80 degrees two days later, with dusty 45 mph winds—our daffodils surprised us with their number and quality." The Silver Anniversary national convention show in Memphis triumphed over two days of twenty-degree weather March 1 and 2, and in Downingtown, Jane Batchelor noted, "The weather was too hot and our refrigerators not large enough, but everything looked okay at the end of the second day." At season's end, in Greenwich, Cathy Riley reported, "Ours was a small show, due to a vicious storm a few days before, but it was a beautiful one!"

Handy Hatfield, as he did in 1979, won ADS honors in four shows. This time he made a clean sweep: the four Gold Ribbons at the four Ohio shows. Handy judged at Dallas and attended the national convention show, both too early for his own daffodils. In Memphis he mapped out an ambitious plan for exhibiting in eight or maybe nine shows in one future season, an exhausting but achievable goal in the show-filled Midwest.

Daffodil growers do not have a provincial outlook. We always enjoy a west-to-east or east-to-west sharing of blooms at national conventions. This year the Rose Ribbon in Memphis went to Harold Koopowitz's beautiful California-bred seedling B472, Binkie × Ambergate, a lovely 2 Y-WWY. A tradition and a pleasure is the addition of the convention visitors from overseas to the national show judging panels; this year our English and Irish hybridizers were also able to judge at the Middle Tennessee show in Nashville a week later.

That was just the tip of the travelers' iceberg, for judges and exhibitors both foreign and home-grown. Phil Phillips, unlike his Irish and English counterparts, was not only half a globe but also half a year away from his own daffodils' blooming season. He was able to judge not only in Memphis, but also in Chapel Hill, Wilmington, Chambersburg, Cleveland, and Greenwich, sharing at each show and in ADS members' gardens his experiences in growing and in showing fine daffodils.

From Dallas and Hot Springs to the Minneapolis suburb of Chaska, from Greenwich to Nashville, from Bethesda to Cleveland and Columbus, from Chambersburg to Hampton, ADS members traveled to judge, and when their season permitted, to exhibit their own daffodils. As Cathy Riley said of the May 1 show in Greenwich, "It was great to see blues going to entries all the way from Nashville." Kathy Andersen judged at six shows ranging from Tennessee to Connecticut, entering blooms in three, as well as taking part in her home town show in Wilmington, winning many ADS honors with both standard and miniature daffodils.

One-fifth of all the 1980 ADS shows were held in a three-day period in mid-April. While Handy Hatfield won Golds and other awards in four shows and Louise Hardison took major ADS awards for collections in three shows, no exhibitor had a better three days in April than Mrs. Verne Trueblood. Entering both the Indiana Daffodil Growers' show in her home town of Scottsburg April 10 and the Kentucky State Show in Louisville April 12, Mrs. Trueblood won the Purple Ribbon, the Maroon Ribbon, the Red-White-and-Blue Ribbon, and the Green Ribbon in both shows, and added the Silver Ribbon and the White Ribbon in Scottsburg.

If daffodil seasons were named as the Chinese name their years, 1980 would be the Year of Segovia. This exquisite 3 W-Y was the undisputed queen of the miniatures, taking fourteen Miniature Golds and Whites in fifteen shows, and appearing in seven other winning Watrous and Lavender Ribbon collections.

The prize-winning standard daffodils of 1980 were three classic large-cups: the shimmering white Broomhill, an F.E. Board introduction, Nell Richardson's elegant Golden Aura, and the always-dependable Grant Mitsch reverse bicolor Daydream. Each won three or four Gold and/or White Ribbons and appeared in at least five other ADS-award winning collections.



Left, Golden Aura; right, Daydream. (Knierim photos)

One very special show of the 1980 season was the Southeast Regional in Atlanta. Mrs. Philip Campbell tells us about it. "Our show was a memorial to Mrs. W.S. (Mildred) Simms, who contributed much to the promotion, improvement and growing of daffodils in Georgia and in the Southeast. It was one of our most beautiful shows; she would have been proud of it. Her husband, Bill, brought two large vases of about ninety lovely daffodils from her garden for display."

THE QUINN MEDAL

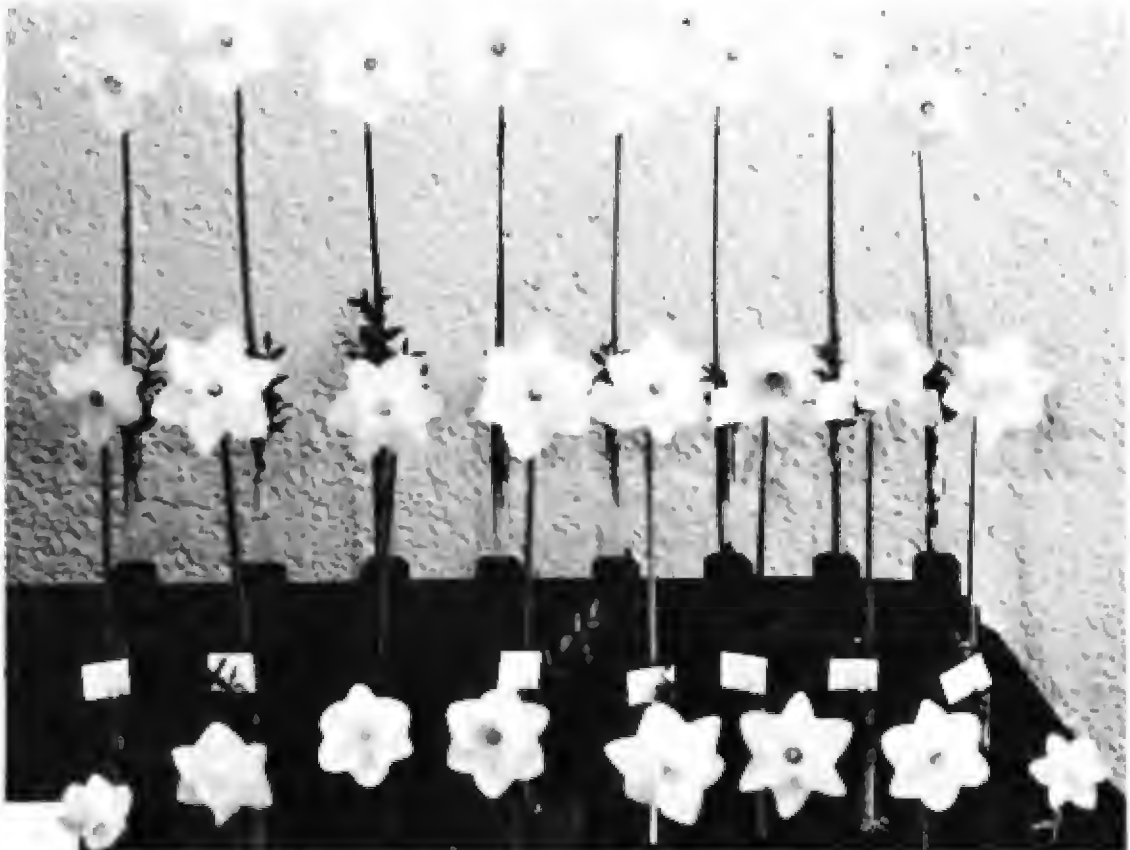
The Carey E. Quinn Silver Medal is given to a collection of 24 cultivars from no less than five divisions, with each stem scoring 90 points. Mrs. Chesterman Constantine won the Quinn medal at the Gloucester show.

The Quinn Ribbon is given to a previous winner of the Silver Medal. In 1980 shows, seven Quinn Ribbons were awarded: to Mrs. Paul Gripshover in Nashville, Dr. Ted Snazelle in Louisville, Mrs. Marvin V. Andersen in Wilmington, Mrs. Harry Wilkie in Indianapolis, Mrs. R.L. Armstrong in Chambersburg, Mrs. John Bozievich in Baltimore, and Handy Hatfield in Columbus.

Mrs. Constantine's medal winning collection gave an impression of whites, as most of her flowers had white petals, with variety in the cup colors. Two flowers here were especially notable. According to show chairman Ann Dischinger, "Melbury, a 2 W-P, had excellent color and form; Cul Beag, a 3 W-R, was well-grown, large, and with much substance, an outstanding specimen." Among the other outstanding flowers in this collection were Delos, Lyrebird, Tangent, Broomhill, Merlin, Golden Aura, Easter Moon, and Panache.

Dr. Snazelle achieved the difficult: staging a Quinn without using a 5, 6, or 7. His collection focused on such lovely short-cups as Dell Chapel, Woodland Jewel, Green Linnet, Purbeck, Jamestown, Ibberton, and Delightful, plus two Ballydorn seedlings.

Mrs. Gripshover's Quinn collection in Nashville, predominantly Division 2, focused on such striking red-cups as Shining Light, Arriba, Avenger, Border Chief, Signal Light, Dresden, and Craigywarren; whites Crenelet, Ben Hee, Desdemona, and Ave; and such pink beauties as Rainbow and Salmon Spray. Mrs. Andersen contrasted brilliant reds such as Loch Hope, Torridon, Loch Owskeich, Zambezi, Red Rum, Mattara, and Arndilly with such smooth whites as Pristine, Broomhill, Rashee, and Pitchroy.



Winning Quinn collection in Nashville.

Mrs. Armstrong's award-winning Quinn collection was built around such lovely pinks as Gracious Lady, also the Gold Ribbon winner, Arctic Char, Luscious, Highland Wedding, and Conval, and such delightful short-cups as Dell Chapel, Lollipop, Aircastle, Merlin, Greenfinch, and Eve Robertson's newly-named Limey Circle. Mrs. Wilkie's winning entry featured such charming small flowers as Jenny, Chickadee, Merry Bells, and Alpine, and an array of reliable older favorites as St. Keverne, Cantatrice, Border Chief, Nazareth, Preamble, and Falstaff, plus a lovely pair of pinks, Rainbow and Pink Isle.

Handy Hatfield's Quinn entry contained striking new flowers, such as the smaller Foundling and Saberwing, and the larger Shadow, High Repute, Dailmanach, Golden Ranger, Birchill, Torridon, and Euphony.

Mrs. Bozievich's Quinn Ribbon came for a collection of lovely short-cups such as Lancaster, Silken Sails, Dr. Hugh, Angel, Purbeck, Palmyra, Gransha, Merlin, and those rare short-cup self-yellows, Bill Pannill's New Penny and Dr. Tom Throckmorton's Johnnie Walker.

THE WATROUS MEDAL

Winning a Watrous medal seems to create more emotion in the recipient than almost any other award, especially when it is a Gold Watrous Medal, awarded to the winner at the national convention. Bill and Laura Lee Ticknor were the overjoyed winners in Memphis, staging a charming group of tiny daffodils which included Jumble, Minnow, Quince, Sundial, Picoblanco, *N. bulbocodium obesus*, *N. b. tenuifolius*, *N. b. filifolius*, *N. fernandesii*, *N. scaberulus*, *N. cyclamineus*, and *N. triandrus pulchellus*.

The Roberta C. Watrous Gold Medal is awarded only at national shows for a collection of 12 miniature daffodils representing at least three divisions. The Silver Watrous medal is awarded at all other ADS shows. In 1980, in addition to the Ticknors' Gold Medal, Silver Watrous Medals were awarded to first-time winners Mrs. John Bates in Nashville and Mrs. William Mackinney in Wilmington. The Watrous Ribbon, given to those who have previously won a Watrous Medal, went to Harold Koopowitz in Corona del Mar, Mrs. A.G. Brooks at the Tidewater Show in Hampton, and to Mrs. Goethe Link at two shows, Scottsburg and Indianapolis.

Minnow was the most valuable miniature for staging a 1980 Watrous entry, appearing in six of the seven successful collections. Mite, Snipe, Jumble, and Sundial appeared in four; Picoblanco, Xit, Quince, *N. watieri*, *N. scaberulus*, and *N. cyclamineus* were used in three collections.

For her first-time Watrous winner, Mrs. Bates chose Mary Plumstead, Flyaway, Curlylocks, Pixie, Pango, Xit, Minnow, Sundial, Hawera, *N. rupicola*, *N. juncifolius*, and *N. cyclamineus*. Mrs. Mackinney's medal winner included Tiny Tot, Segovia, Gipsy Queen, Tosca, Kenellis, Snipe, Xit, Sundial, Minnow, Quince, *N. watieri*, and *N. scaberulus*.

Koopowitz had an outstanding miniature seedling of his own in his ribbon winner, TZ6-1, *N. bulbocodium romieuxii* × 2W-P. He was the only one to use Tete-a-Tete, April Tears, and *N. triandrus albus*. Mrs. Brooks' entry included *N. jonquilla minor*, *N. macleayi*, Small Talk and Cyclataz. Mrs. Link's two entries featured Petit Buerre, Atom, Bagatelle, Mustard Seed, and her own seedling 173, a 5Y-Y.

THE BRONZE RIBBON

The Bronze Ribbon is offered only at regional shows and is awarded to a successful collection of twelve cultivars, three stems each. In 1980 there were three Bronze winners: Bill Pannill at the Mid-Atlantic Regional in Hampton, Mrs. Marvin V. Andersen at Wilmington, and Richard Ezell at the New England Regional in Greenwich.

Bill Pannill's Bronze winner drew much critical acclaim from show visitors, who termed his selection of numbered seedlings and his own registered daffodils most outstanding. He grouped Irvington, New Penny, Rim Ride, all short-cups; Highlite, an unusual 2 Y-PPY; and trumpets Apostle and the white Mountain Dew, which won the show's Gold Ribbon, with six of his seedlings.

Both Kathy Andersen's and Richard Ezell's Bronze Ribbon winners showed a definite Irish influence. Kathy used six of the Richardson cultivars, Celtic Gold, Avenger, Viking, Rockall, Fiji, Cairngorm, Corofin, and Mexico, plus Willie Dunlop's Ormeau; while Richard selected Richardson cultivars Green Linnet, Camelot, Rameses, Amber Light, Tudor Minstrel, Lemonade, and Hotspur, plus Guy Wilson's Stainless, Slieveboy, and Tobernaveen, and Dunlop's Irish Splendor.

THE GOLD AND WHITE RIBBONS

Each daffodil season offers us its own delightful surprises. Nowhere is this seen more clearly than in the cultivars which, for one particular day, in one particular show, are chosen better than all of the best. Large or small, early, mid-season or late, the tallest of 3's or the smallest cyclamineus or triandrus, as old as the 1952 Richardson Golden Rapture or as new as a clone of an Evans seedling, as close to home as the orange-cupped Nantucket which took top honors in the seacoast town for which it was named or as far from home as the Australian trumpet Jobi which won top honors in Cincinnati—these are the daffodils which won the Gold Ribbon for the best bloom in the show and the White Ribbon for the best vase of three matching blooms.

Five cultivars were winners in more than one show. Willet won the White both at Corona del Mar and in Memphis. Angel won the White in Atlanta and in Greenwich and the Gold at Plymouth Meeting. Broomhill won the Gold in Princess Anne, Chillicothe, and Columbus, and the White at Cincinnati. Daydream won the Gold at one of our new shows, in Hiram, Georgia, and the White in Gloucester and in Columbus. Golden Aura took both the Gold and White at Nashville and the White in Chillicothe.

Six ADS members won in more than one show. Gerard Wayne won the White Ribbon at Corona del Mar and the Gold at LaCanada. Mrs. Marvin Andersen won the White in Wilmington and the Gold at Plymouth Meeting. Mrs. David Frey won the Gold both in Scottsburg and in Chaska. Bill Pannill won the Gold in Gloucester and both the Gold and the White in Hampton. Mrs. Ernest Hardison won both Gold and White in Nashville and also in Washington. Handy Hatfield won an unprecedented four Golds, in Cincinnati, Chillicothe, Columbus, and Cleveland.

Winners are listed here with the name and place of the show, the number of blooms entered, and the date on which the show opened.
(G-Gold; W-White)

SHOWS

Southern California
Early Show, Corona
del Mar; 385; 3/8

Southern California
Daffodil Society,
LaCanada; 652; 3/15

Southwest Regional,
Dallas, Texas; 503;
3/21

Pacific Regional,
Oakland, California;
403; 3/22

Rural Beauty Garden
Club, Hiram, Georgia;
382; 3/26

Silver Anniversary
National Convention
Show, Memphis,
Tennessee;
1,377; 3/27

Fortuna Garden Club,
Fortuna, California;
467; 3/29

North Carolina State,
Chapel Hill; 536;4/2

Southeast Regional,
Atlanta, Ga.; 1,072;
4/3

Mid-Atlantic Regional,
Tidewater Daffodil
Society, Hampton,
Virginia; 2,198;4/5

Tennessee State,
Middle Tenn. Daffodil
Society; Nashville; 1,417;
4/5

Indiana Daffodil
Growers, Scottsburg;
428; 4/10

Council of Garden
Clubs, Huntington
West Va.; 416; 4/12

Southern Regional,
Louisville, Kentucky;
567; 4/12

Somerset County Garden
Club, Princess Anne,
Maryland; 483; 4/12

WINNING CULTIVARS

Audubon G

Willet W

Tangent G

Stratosphere W

Greenlet G

Jetfire W

Chiloquin G

Ave W

Daydream G

Peace Pipe W

Achduart G

Willet W

Quetzal G

Troupial W

Lynx G

Bethany W

Evans V10, clone 1,
2 W-W G

Angel W

Mountain Dew G

Sdlg. G7/55 (Easter
Moon × Silken Sails)W

Golden Aura G

Golden Aura W

Surfside G

Charter W

Sdlg. #43/4 (Easter
Moon × Panache) G

Bee Mabley W

Woodland Splendor G

Easter Moon W

Broomhill G

Harmony Bells W

EXHIBITORS

Lori Brandt/Owen
Bjornstad
Gerard Wayne
Gerard Wayne
Bill Hesse

Mrs. Jesse Cox
H.R. Hensel

Ben Hager
Sid DuBose

Mr. and Mrs. Jack
Yarbrough
Mr. and Mrs. Jack
Yarbrough
Miss Leslie Anderson
Kevin McKenzie

Betty Teasley
Jay Pengra

Mr. and Mrs. W.O.
Ticknor
Mr. and Mrs. W.O.
Ticknor
Otis Etheredge

Mr. and Mrs. Maurice
Abercrombie
Bill Pannill
Bill Pannill

Mrs. Ernest Hardison
Mrs. Ernest Hardison

Mrs. David Frey
Mrs. Verne Trueblood

Mrs. Clifford E. Fitzwater

Mrs. Clifford E. Fitzwater
Mrs. Luther Wilson
Miss Julie Coley

Mrs. N. Thomas
Whittington, Jr.
Miss Martha Simpkins

SHOWS	WINNING CULTIVARS	EXHIBITORS
Washington Daffodil Society, Washington, D.C.; 754/ 4/12	Shadow G Drumboe W	Mrs. Ernest Hardison Mrs. Ernest Hardison
Garden Club of Gloucester, Va.; 1,708; 4/12	River Queen G Daydream W	Bill Pannill Fred G. Pollard
Southwest Ohio Daffodil Society, Cincinnati; 999; 4/16	Jobi G Broomhill W	Handy Hatfield Mrs. Stuart H. Jacobs
Northeast Regional, Wilmington, Delaware; 645; 4/18	Verona G Cairngorm W	Mrs. Robert Weeks Mrs. Marvin V. Andersen
Midwest Regional, Indianapolis, Indiana; 1091; 4/19	White Charm G Golden Rapture W	Mrs. James Liggett Mrs. Robert N. Sulgrove, II
Adena Daffodil Society, Chillicothe, Ohio; 835; 4/22	Broomhill G Golden Aura W	Handy Hatfield Mrs. David Gill
Chambersburg Garden Club, Chambersburg, Pa.; 616; 4/22	Gracious Lady G Rameses W	Mrs. R. L. Armstrong Mrs. Owen W. Hartmann
Maryland Daffodil Society, Baltimore; 1,063; 4/23	Delcare G Top Notch W	Mrs. John Bozievich Mrs. John Bozievich
Pennsylvania State, Plymouth Meeting; 776; 4/25	Angel G Signal Light W	Mrs. Marvin V. Andersen Mrs. Alma Bender
New Jersey Daffodil Society, Princeton; 648; 4/26	Rockall G Eland W	Richard Kersten Mrs. Bassett Winmill
Garden Class, Downingtown, Pa.; 329; 4/23	Artillery G Butterscotch W	Mrs. W.G. Carpenter Mrs. W.G. Carpenter
Central Ohio Daffodil Society; Columbus; 1,576; 4/26	Broomhill G Daydream W	Handy Hatfield Miss Lura Emig
Nantucket Garden Club, Nantucket, Mass.; 211; 4/30	Nantucket G	Mrs. Donald Williams
Western Reserve Daffodil Society, Cleveland, Ohio; 424; 4/29	Shining Light G Festivity W	Handy Hatfield Lillian Hafeley
Greenwich Daffodil Society, Greenwich, Conn.; 730/ 5/1	Pure Joy G Angel W	Mrs. Clark Randt Mrs. Helen Farley
Daffodil Society of Minnesota, Chaska; 170; 5/10	Sweet Music G Pewee W	Mrs. David Frey Mrs. David Frey

THE MAROON RIBBON

The Maroon Ribbon is awarded to a collection of five different reverse bicolor daffodils. In 1980 it was awarded at fifteen ADS shows. Thirty-five named cultivars and half a dozen seedlings were used in the winning entries. Daydream and Rushlight appeared in seven entries, Honeybird in six, and Bethany and Charter in four.

Mrs. John Bozievich staged a unique entry in Baltimore which included Grand Prospect, Cloud Nine, Drumnabreeze, New Day, and Pannill seedling PL/66/8. Mrs. Helen Farley's entry in Greenwich included Avalon, Teal, Grand Prospect, Daydream, and Rushlight. Another charming entry was Mr. and Mrs. Jack Yarbrough's selection of Pipit, High Note, Green Gold, Chiloquin, and Verdin in the Atlanta Show.

Mrs. Ernest Hardison won three times, in Memphis, Nashville, and Washington. Mrs. Verne Trueblood won in Scottsburg and in Louisville; Mrs. James Liggett won the Maroon Ribbon both in Columbus and in Cleveland. Other winners of this award included Mrs. Raymond Lewis at Hampton, Mrs. E.T. Cato in Princess Anne, Bill Pannill in Gloucester, and Mrs. Lawrence Billau in Downingtown.

THE RED-WHITE-AND-BLUE RIBBON

The Red-White-and-Blue Ribbon is awarded to a collection of five American-bred daffodils. More than eighty different named cultivars appeared in the twenty-three winning collections; these showed a predominantly Oregon influence.

A growing trend in Red-White-and-Blue competition is the use of the entrant's own numbered seedlings and newly-registered cultivars.

Bill Pannill won this award twice, in Gloucester and at Hampton. He used his own Imprint and Homestead in both entries; and his River Queen, High Tea, Full Fashion, Chromacolor, Javelin, and Rim Ride once.

Harold Koopowitz won the Red-White-and-Blue in LaCanada with a group of his own seedlings, including his Rose Ribbon Winner, 676-1, Dinkie × cyclamineus. Dr. Bill Bender's award winner in Chambersburg included two of his own hybridizing plus three POPS seedlings.

Mrs. James W. Riley had an attractive entry in Greenwich which included Amberglow, Olathe, Pure Joy, Widgeon, and Pitta. Mrs. Neil Macneale made a graceful grouping at Huntington with Merry Bells, Ivy League, Inauguration, Water Music, and White Caps. Handy Hatfield's excellent award winner in Chillicothe included Quasar, Pink Easter, Resplendent, Greenlet, and Chapeau.

Mrs. Ernest K. Hardison won the Red-White-and-Blue in three shows: in Nashville, in Washington, and at the national convention show in Memphis. Mrs. Verne Trueblood won the award both in Scottsburg and in Louisville. Other winners included Mrs. David Gill, Columbus; Mrs. W.G. Carpenter, Downingtown; Miss Sallie Anderson, Princeton; Mrs. Marvin Andersen, Plymouth Meeting; Mrs. John Bozievich, Baltimore; Mrs. Robert Weeks, Wilmington; Mrs. George F. Parsons, Princess Anne; Mr. and Mrs. Jack Yarbrough, Atlanta; Mrs. Robert Walker, Chapel Hill; Stan Baird, Fortuna; and Gerard Wayne, Corona del Mar.

THE GREEN RIBBON

The Green Ribbon is awarded to a collection of twelve stems of different cultivars from at least four divisions. This was a popular category in 1980, with more than twice as many award winners as in 1979.

Mrs. Jay Dee Atkins's well-staged Green Ribbon winner at the national show in Memphis showed great substance and excellent pose; it included Golden Aura, Festivity, Front Royal, Audubon, Rushlight, Yosemite, Falstaff, Frostkist, Shining Light, White Caps, Daydream, and Niveth.

Mrs. Neil Macneale's winner in Indianapolis focused on bright cups of pink, red, and orange: Kimmeridge, Rio Rouge, Golden Amber, Kitten, Penpol, Topkapi, Tudor Minstrel, Suede, Downpatrick, Canisp, Perimeter, and Graduation. Mrs. William Pardue's excellent Green Ribbon collection in Chillicothe included Resplendent, Perky, Arish Mell, Canisp, Olathe, Strines, Bushtit, Broomhill, Killdeer, Rameses, Joyous, and Loch Hope.

Many favorable comments were received about Handy Hatfield's entry in Cleveland which included Shining Light, Misty Glen, Symphonette, Moonfire, Emily, Chiloquin, Beige Beauty, Birchill, Cold Overton, Star Trek, Irish Light, and Saberwing; and about Mrs. John Bozievich's Baltimore winner, which featured Angel, Modulux, Danes Balk, Broomhill, Heart Throb, Loch Stac, Badanloch, Lipstick Pink, Earthlight, Fiji, April Love, and a Ballydorn seedling.

Mr. and Mrs. W.O. Ticknor won the Green Ribbon in Chapel Hill with a charming collection from both sides of the equator. Featured here were Highfield Beauty, Bogside, Rathowen Gold, Ellanne, Lynx, Exotic Pink, Trumpet Call, Loch Owskeich, Snow Dream, Redeem, and Isobel Chaplin.

What does Meg Yerger enter when it's too early for poets? Visitors to the Princess Anne show found the answer in her entry of Jet Set, Rowallane, Chloe, Waxwing, Celtic Song, Oneonta, Peaceful, Hiawassee, Rashee, Park Royal, Gossamer, and one lone poet, Helen Link's 1975 introduction Phebe.

At Gloucester Bill Pannill won the Green Ribbon with Rhine Wine, praised as one of the very best flowers in this large show, and eleven of his numbered seedlings. His winner at the Tidewater Show in Hampton included Indian Maid, Golden Falcon, Rim Ride, and nine numbered seedlings which included four trumpets and four pink cups.

Other winners of the Green Ribbon in 1980 included Gerard Wayne at Corona del Mar, Harold Koopowitz in LaCanada, Dr. Ted Snazelle in Nashville, Mrs. John Bozievich in Washington, Mrs. Harry Wilkie in Cincinnati, Mrs. Robert Weeks in Wilmington, Mrs. Alma Bender in Chambersburg, Richard Ezell at Plymouth Meeting, and Mrs. Verne Trueblood both in Scottsburg and at Indianapolis.

THE PURPLE RIBBON

The winners of the Purple Ribbon can rightly take great pride in this award, as it always has much competition. It may be awarded to any five-stemmed collection of standard daffodils designated as eligible by the show schedule, except those for which other ADS awards are given.

While the Maroon Ribbon entries, and to some extent the Red-White-and-Blue entries, draw from the same basic group of flowers, the Purple Ribbon has possibilities limited only by the imagination of the schedule-maker and entry-maker. Winners may be grouped by color, by RHS division, by originator, or even by date of origin. Since long-cups predominate in the Data Bank, they also tend to dominate in Purple Ribbon winners, but with many possible sub-divisions.

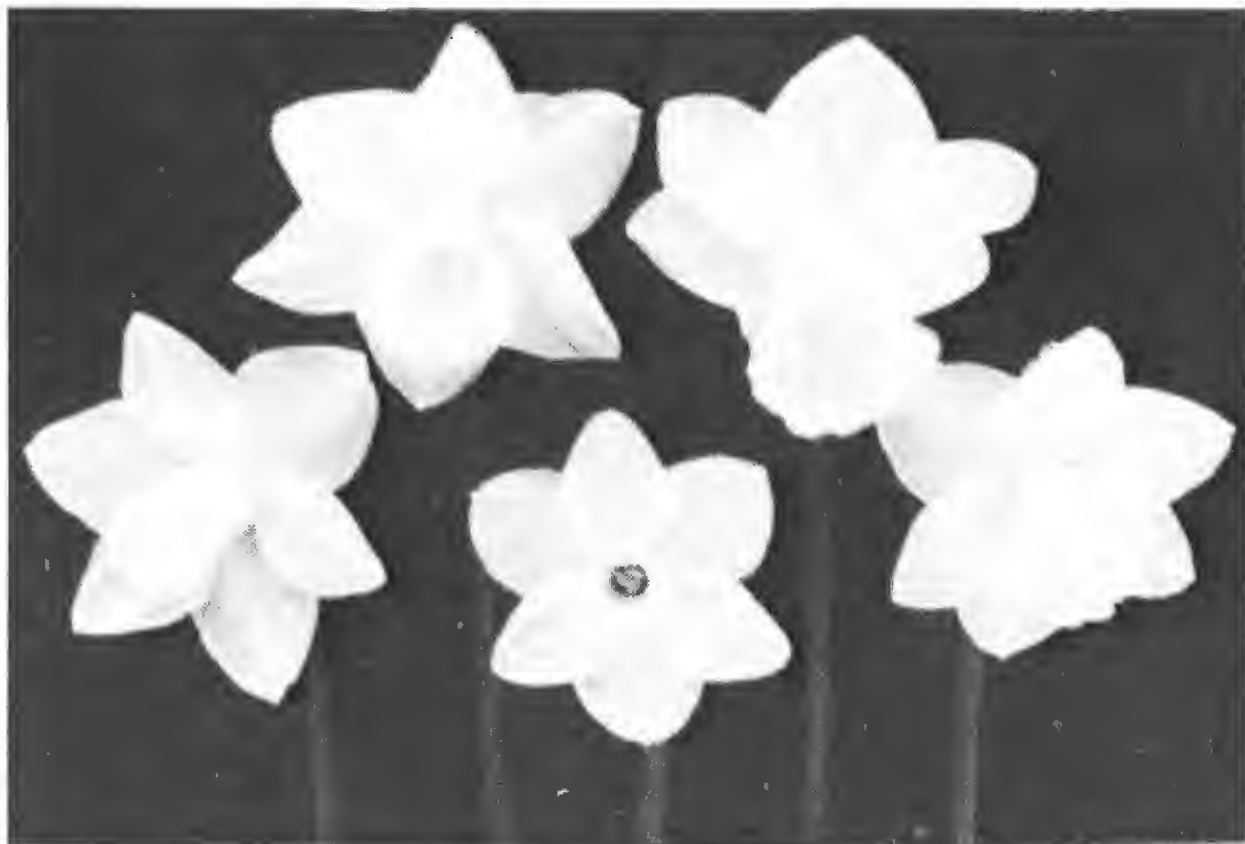
Small flowers can be winners in the Purple Ribbon category, and the cyclamineus, with its grace and charm, is always well-represented. In 1980, five cyclamineus entries took top honors, including Mrs. H.E. Stanford's enchanting group at the national show which included Beryl, White Caps, Charity May, Andalusia, and Swift, the winner of both the Fowlds and the Lee awards. Harold Koopowitz had an attractive winner with five of his own cyclamineus seedlings. Four had Beryl as one parent; one was the Rose Ribbon winner.

Others who won the Purple Ribbon with seedlings included Bill Pannill, taking the honor at Hampton with Mountain Dew, Golden Chord, Golden Falcon, Apostle, and sdlg. 64/19C, all trumpets; Mrs. Clifford E. Fitzwater in Huntington with Panache and four of her white seedlings which have Panache as a parent; and Dr. Bill Bender, in Chambersburg.

Two charming collections of short-cups won the Purple Ribbon. Mrs. Robert Weeks in Wilmington staged Glenwherry, Ballysillan, Dreamcastle, Achduart, and Green Linnet; Mrs. John Bozievich at the WDS show won with Kimmeridge, New Penny, Ariel, Doubtful, and Park Springs.

Mrs. C.R. Bivin in Dallas had the only jonquil winner of the Purple Ribbon, choosing Bell Song, Chat, Cherie, Finch, and Circuit. The only reverse bicolor winner of this award was staged by Mrs. Lawrence Billau in Downingtown and featured Entrancement, Spellbinder, Lunar Sea, Honeybird, and Binkie.

Five superb whites always make a strong Purple Ribbon entry. Mrs. William Baird won in Columbus with Silent Valley, Churchman, Angel, Canisp, and White Star; Gerard Wayne was the winner in La Canada with Broomhill, Panache, Pristine, Vigil, and April Love.



Mrs. Baird's Purple Ribbon Winner in Columbus.

Two attractive pink-cupped groups won the Purple Ribbon. Mrs. Merton Yerger selected Celtic Song, Rose Royale, Rosedew, Tangent, and Passionale for her entry at Princess Anne, and Richard Spotts was the victor in Fortuna with Propriety, Milestone, Blaris, Salome, and Saucy.

Mr. and Mrs. Jack Yarbrough won both in Hiram and in Atlanta; Mrs. Verne Trueblood won both in Scottsburg and in Louisville. Other Purple Ribbon winners included Mrs. Waller Harrison in Chapel Hill, Mrs. Ernest Hardison in Nashville, Mrs. R.L. Armstrong in Gloucester, Mrs. Harry Wilkie in Cincinnati, Mrs. James Liggett in Indianapolis, Nancy Gill in Chillicothe, Mrs. Marvin V. Andersen in Plymouth Meeting, Livingston Watrous in Nantucket, Wells Knierim in Cleveland, and Helen Farley in Greenwich.

THE MINIATURES

"All the miniatures were crowd favorites; it was unbelievable that we could have so many!" commented Miss Leslie Anderson, show chairman for the early-season national convention show in Memphis. In the small, first-time show in Hiram, Georgia, Betty Drafall commented, "Segovia was a favorite, as well as other miniatures. The public from this area hadn't seen many of the miniatures; quite a few plan to grow some of them in the coming season."

These echoes of enchantment with the smallest daffodils came from all across the country. On the West Coast miniatures are always popular, and this year potted miniatures were frequently displayed. Lavender Ribbons, Miniature Whites and Golds, and Miniature Rose Ribbons were awarded at all four shows.

Back East, the same theme continued. In Huntington, "The miniatures were much admired, as always;" in Indianapolis, "For the non-growers, all the miniatures were favorites, especially *N. scaberulus*;" in Cleveland, "Miniatures are always popular;" and in Nantucket, "The miniatures were the show-stoppers this year." At the Wilmington show, Bill Pannill's miniature 6 W-W Junior Miss, in a special exhibit, was one of the favorite flowers.

Mrs. James Liggett won the Miniature White Ribbon, which is given to the best three stems of one cultivar or species, in Indianapolis and in Columbus, and the Miniature Gold Ribbon, awarded to the best miniature bloom in the show, also in Columbus.

Four exhibitors were double winners. On the West Coast, Jay Pengra won the Miniature Gold in LaCanada and the Miniature White in Fortuna, both with Segovia, and Kathy Leonardi won the Miniature Gold in Fortuna and in Oakland. Mrs. R.L. Armstrong won the Miniature White in Hampton, and both the Miniature Gold and White in Chambersburg. Mr. and Mrs. W.O. Ticknor won the Miniature White in Memphis and both the Miniature Gold and White in Chapel Hill.

The winning flowers were; (1-Miniature Gold Ribbon, and 3-Miniature White Ribbon):

SEGOVIA, Division 3

Dave Karnstedt, Chaska 1
Wallace Windus, Plymouth Meeting 3
Quentin Erlandson, Baltimore 1
Mrs. Howard Junk, Chillicothe 1
Mrs. William E. Baird, Indianapolis 1
Jay Pengra, La Canada 1
Jay Pengra, Fortuna 3
Sid DuBose, Oakland 3
Mrs. Robert Gibson, Hiram 1, 3
Mrs. Johannes Krahmer, Wilmington 3
Donald S. King, Gloucester 1
Mrs. Merton Yerger, Princess Anne 1
David Cook, Atlanta 1

XIT, Division 3

Mrs. George Mott, Greenwich 1
Mrs. Elisha Hanson, Washington 3
Mrs. Luther Wilson, Louisville 3
Mr. and Mrs. W.O. Ticknor, Chapel Hill 1
David Cook, Atlanta 3
Maida L. Ham, Huntington 1



Segovia (Knierim photo)

CLARE, Division 7

Mrs. James Liggett, Cleveland 1
Mrs. R.L. Armstrong, Chambersburg 3
Kathy Leonardi, Fortuna 1

N. triandrus albus, Division 10
Mrs. Charles Reis, Nantucket 1
Mrs. Walter Clough, Princeton 1
Wallace Windus, Plymouth Meeting 1

SUNDIAL, Division 7
Mrs. T.C. Holyoke, Chillicothe 3
Mrs. E.J. Adams, Huntington 3

SNIFE, Division 6
Handy Hatfield, Cincinnati 3
Fred G. Pollard, Gloucester 3
Mrs. R.L. Armstrong, Hampton 3

CHIT CHAT, Division 7
Bill Hesse, LaCanada 3
Costanza Tedesco, Nashville 1

Other Miniature Gold Ribbon winners were:

N. scaberulus: Mrs. Neil Macneale, Cincinnati
Flyaway, Mrs. George D. Watrous, Jr., Washington
Demure, Mrs. James Liggett, Columbus
Stafford, Mrs. R.L. Armstrong, Chambersburg
N. rupicola: Miss Elizabeth Ann Bicknell, Louisville
N. cyclamineus: Mrs. Lester Belter, Hampton
Picoblanco: Harold Koopowitz, Corona del Mar
Sun Disc: Mrs. John Warmerdam
N. juncifolius: Kathy Leonardi, Oakland
Bagatelle: Mrs. Johannes Krahmer, Memphis
Pledge: Mrs. Goethe Link, Scottsburg

Other Miniature White Ribbon winners were:

Hawera: Mrs. David Spitz, Cleveland
Halingy, Mrs. James Liggett, Indianapolis
Minnow: Mr. and Mrs. W.O. Ticknor, Chapel Hill
Quince: Mrs. George Mott, Greenwich
Rikki: Mrs. James Liggett, Columbus
Yellow Xit: Mrs. Roland Larrison, Princeton
April Tears: Mrs. John Payne Robinson, Baltimore
N. bulbocodium conspicuus: Mrs. George F. Parsons, Princess Anne
Canaliculatus: Dr. Ted Snazelle, Nashville
Jumblie: Marta Wayne, Corona del Mar
Tête-a-Tête: Virginia Wolff, Scottsburg
N. bulbocodium filifolius: Mr. and Mrs. W.O. Ticknor, Memphis

THE LAVENDER RIBBON

Sixteen exhibitors staged eighteen successful Lavender Ribbon entries featuring more than forty different small cultivars. Two ADS members were double winners, both on the West Coast. Jay Pengra won at Corona del Mar and at LaCanada, using Hawera, Minnow, Pixie's Sister, and *N. bulbocodium conspicuus* at both. Nancy Wilson won in Oakland and in Fortuna, using ten different cultivars.

Minnow and Segovia were used in seven Lavender Ribbon winners, Xit and *N.b. conspicuus* in five, and Hawera in four. Fourteen of the award winners used at least one species miniature.

Jay Dee Atkins's Lavender Ribbon winner in Atlanta was outstanding, according to the show chairman, Mrs. Philip Campbell. It included Hawera, Segovia, Minnow, Xit, and Paula Cottell. In Washington, Mary Pamplin noted that Mrs. George C. Watrous's Lavender winner was a crowd pleaser; it included her registered cultivar Flyaway and four of her numbered seedlings. Mrs. Marvin Andersen had a striking Lavender award winner at the national show in Memphis which included Snipe, Candlepower, Opening Bid, Bagatelle, and Sprite.

Other winners of this award were Mrs. John Payne Robinson in Hampton, Mr. and Mrs. W.O. Ticknor in Chapel Hill, Mrs. Joe Talbot in Nashville, Mrs. Neil Macneale in Scottsburg, Mrs. A. Gordon Brooks in Gloucester, Wallace Windus in Wilmington, Mrs. William E. Baird in Indianapolis, Mrs. R.L. Armstrong in Chambersburg, Mrs. David Gill in Columbus, Mrs. James Liggett in Cleveland, and Mrs. Adrian Farley in Greenwich.

THE SILVER RIBBON

The exhibitor who earns the greatest number of blue ribbons in the horticultural section of an ADS show is awarded the Silver Ribbon. Mrs. Ernest Hardison was this year's top winner with 39 blue ribbons in Nashville; she also won the Silver Ribbon at the national show in Memphis with 11.

Three other ADS members were double winners. Jay Pengra won the Silver Ribbon in Corona del Mar with 11 and at LaCanada with 18. Mrs. Marvin V. Andersen won twice, in Plymouth Meeting with 14 and in Wilmington with 15. Mrs. Betty Beery took the Silver Ribbon in Cincinnati with 15 and in Chillicothe with 16.

The roster of Silver Ribbon winners for 1980 also includes: Mrs. R.L. Armstrong in Chambersburg and Mrs. John Bozievich in Washington with 22; Mrs. Helen Farley, Greenwich, Mrs. James Liggett, Columbus, and Bill Pannill, Hampton, with 21; Mrs. Verne Trueblood, Scottsburg, and Mrs. W.G. Carpenter, Downingtown, 20; Wells Knierim, Cleveland, 18; Mrs. David Frey, Indianapolis, Fred G. Pollard, Gloucester, and Mrs. Luther Wilson, Louisville, 17; Christine Kemp, Fortuna, 16; Mr. and Mrs. Jack Yarbrough, Atlanta, Mrs. C.R. Bivin, Dallas, and Mrs. Roland Larrison 15; Mr. and Mrs. W.O. Ticknor, Chapel Hill 14; Mrs. John Payne Robinson, Baltimore, and Mrs. Merton S. Yerger, Princess Anne, 13; Julius Wadekamper, Chaska, and Sid DuBose, Oakland, 12; Mrs. Robert Gibson, Hiram, 11; Mrs. Curtis R. Davis, Huntington 10; and Livingston Watrous, Nantucket, 7.

THE JUNIOR AWARD

Martha Marie McElroy of Hernando, Mississippi, age 10, won a Junior Award at an ADS show for the fourth year in a row. This one came at the national convention show in Memphis for the short-cup Kimmeridge. Other Junior winners at Memphis were Rebecca Scott, who won the special Junior Sweepstakes award, and Kevin McKenzie, who won the ADS White Ribbon with three blooms of Willet.

On the West Coast, Marta Wayne won the Junior Award with Jenny at LaCanada and the Miniature White Ribbon with Jumblie at Corona del Mar. Nathan Wilson won the Junior Award with the old but still show-worthy white/red short-cup Glenwherry both in Oakland and in Fortuna.

Bobby Beasley won the Junior Award in Texas for the second straight year, this time with Tresamble. Pueblo was a Junior Award winner for Tracie Lynn Campbell in Atlanta, and Shining Light took top honors for seven-year-old Gretchen Snazelle in Nashville. Sherri Bozay won with Sweetness in Huntington, Carmen Thornton with Tyee in Louisville, and Heidi Stegmeier with Actaea in Columbus.

THE ROSE RIBBON

In the June, 1972, *Daffodil Journal*, Marion G. Taylor, writing of the recent Portland convention, noted, "For the first time, the Gold Carey E. Quinn award was given to a collection consisting entirely of seedlings; those raised by William G. Pannill, of Martinsville, Virginia . . . from the collection a 1b won the Gold Ribbon . . . Mr. Pannill also won the Rose Ribbon for the best seedling in the class for standard type seedlings."

That was just eight short years ago, but light-years away in terms of American hybridizing. Now it would be worth banner headlines if Bill Pannill ever used anything in an entry except his own registered cultivars and newest numbered seedlings.

Nor is he the only one. Dr. Bill Bender, up in Chambersburg, Pennsylvania, and both Harold Koopowitz and Sid DuBose out on the West Coast often stage, and win, large collection class entries consisting entirely of their own seedlings.

Koopowitz won the Rose Ribbon at the national convention show with B472, a 2 Y-WWY Binkie × Ambergate seedling. Earlier he had won the Rose both at Corona del Mar and at LaCanada with E676-1, a 6 W-W, Binkie × *cyclamineus* cross. At LaCanada this daffodil was selected the best Division 6 flower in the show and appeared in the winning Red-White-and-Blue collection. According to show chairman Jay Pengra, some visitors at Corona del Mar liked Koopowitz's C472-3, a strongly reversed Beryl op, even better.

Visitors at the Tidewater show in Hampton, this year's largest, considered Bill Pannill's selections of his seedlings and registered daffodils among the most outstanding of the more than two thousand daffodils on display. Pannill won the Rose Ribbon at Hampton with 144, a 1 W-P, Empress of Ireland × Accent. At Gloucester he earned the Rose Ribbon with 64/36C, a 3 W-YR Corofin × Hotspur seedling.

Columbus show chairman Ruth Pardue stated, "Dr. Bill Bender's seedlings were exquisite, especially the Rose Ribbon winner 70/1/N7/L, Lemonade × (Binkie × Aircastle), a 2 Y-Y, and his 76/80/F1 Milan × Cantabile." Dr. Bender also won the Rose Ribbon in Chambersburg with 75/59, a 2 Y-P POPS flower.

Bender seedling. [Lemonade
× (Binkie × Aircastle)]



Meanwhile out on the West Coast, the Rose Ribbon at Oakland was won by Sid DuBose's D86-7, a 2 W-P, Rose Royale × Evans N58-2. Another of his seedlings, T-E-D 3, probably Cantabile × Smyrna, was listed among the crowd favorites.

Mr. and Mrs. W.O. Ticknor won the Rose Ribbon in Chapel Hill with Tuggle seedling 65/10/2. Mrs. Luther Wilson repeated as the winner at the Kentucky State Show, this year with W-P/24, a short-cup.

In Rose Ribbon competition, as in everything else, we find specialists. Mrs. Merton Yerger's name has become synonymous with poet daffodils; this year Meg won the Rose Ribbon at two shows with poet seedlings which were acclaimed as among the loveliest of the flowers in each show. At Princess Anne the poet winner was 74B2, a 9 W-GYO, a Powell poet × Milan. The winner in Wilmington was her 75-1-3, Quetzal op.

Mrs. Clifford E. Fitzwater has been striving for green-eyed daffodils for years; in the quest she has produced emerald eyes and also some beautiful white flowers. One of these was the 1980 Rose Ribbon winner in Huntington, 43/4, a 2 W-W, Easter Moon × Panache. Mrs. Fitzwater also won the Gold Ribbon with this flower, and the White Ribbon with her own registered cultivar, Bee Mabley, a 3 W-YYO. According to the show chairman, Mrs. James Caldwell, these were the flowers which created the greatest interest among judges and ADS members in attendance.

The Rose Ribbon classes saw some new names listed as winners. Barrie Kridler won in Dallas with 0516-072, a 1 Y-Y Kingscourt × Unsurpassable. Otis Etheredge took the Rose Ribbon in Atlanta with H31/1, Fairy Tale × a Top Secret seedling. Dr. Ted Snazelle won in Nashville with 79/1/3, 1 W-Y Wahkeena × Festivity. William Gould, Jr., was the winner in Washington with 69/12, a 2 W-P Coral Ribbon × Rose Royale.

In that same June 1972 *Journal* article, Mrs. Taylor added, "Mrs. George D. Watrous, Jr., won the new Miniature Rose Ribbon for one of her seedlings." Roberta is still winning Miniature Rose Ribbons. In Washington her winning entry was 665, a 7 W-W Snipe × *N. jonquilla*. The miniature champion in the Wilmington show was a Watrous Delegate × *N. jonquilla* seedling.

Bill Pannill has also discovered the pleasures of hybridizing miniature daffodils. He won the Miniature Rose Ribbon at the national show in Memphis with C34/4, Mite × *calciola*, and in Hampton with G20A, a 6 Y-Y, Jenny × *N. jonquilla*.

Harold Koopowitz also combines Rose and Miniature Rose Ribbons in his award collection. At the Corona del Mar show he won the Miniature Rose with T76-1, a 12 W-W, *N. bulbocodium romieuxii* × 2 W-P.

At the LaCanada show, Ed Zinkowski won the Miniature Rose Ribbon for the second straight year, this time with 80 D-1, a 2 Y-W Daydream × *N. jonquilla*. The winner of this award in Oakland was Jack Romine's graceful 5 W-W, 80-1, Quick Step × *N. triandrus*.

A newcomer to miniature hybridizing, Mrs. R.L. Hatcher, won the Miniature Rose Ribbon at the Atlanta show with M/10, a 2 Y-Y.

THE ARTISTIC CLASSES

This year, four of every five ADS shows included flower arrangements featuring daffodils; but the total number decreased from last year's high of 731 to 569 in 1980. Some of the shows did not judge arrangements competitively, but instead used them to add beauty to the show, often staging them near the entrances, as was done at the national convention show.

WHAT FLOWERS WERE FAVORITES?

In this year of bountiful, beautiful show tables, elegant older flowers, and spectacular new ones, it's a temptation to say, "All of them were!"

Why do we go to such lengths to invite non-growers to our daffodil shows, putting posters in windows and articles in newspapers? The members of the Rural Beauty Garden Club in Hiram, Georgia, sponsoring their first small ADS show, already know the answer to that question. "The viewing public from this area hadn't seen many of the reds, pinks, and miniatures," explained show chairman Betty Drafall. "Our show created interest, and quite a few plan to grow some of them for coming seasons."

These new growers and showers weren't the only ones who liked the pinks and the reds. These bright blooms were crowd-pleasers all over the nation throughout the spring of 1980. Jetfire, Coral Ribbon, and Red Idol were the favorites in Hiram, Georgia. Velvet Robe and Merlin were cited as most outstanding in Indianapolis; Tonga and Loch Hope were top choices in Corona del Mar; Arbar was a favorite in Princeton; and Red Hot was "the most noticed flower" in Cleveland. From Nantucket, Mrs. Earle MacAusland said, "All the pinks were good, but especially Rubythroat." Mrs. Francis Harrigan, reporting from Plymouth Meeting, said, "The pink classes were well-filled and made a beautiful spot on the show table." Gracious Lady was not only a Gold Ribbon winner at Chambersburg but won the Richardson Trophy as the best pink at Greenwich.

There are all sorts of ways to attract new growers. Louisville's large Kentucky State show was staged in a shopping mall, drawing casual visitors as well as serious horticulturists. "Most people wanted to know where they could buy or order bulbs," said Helen Dean, "and the Kentucky Daffodil Society recruited five new members."

Sometimes it's the media which needs the most educating. The photographer sent to cover the national convention looked as if he would have felt more at home with a Memphis State football game or a five-car smash-up on the Interstate. He looked around the purposeful chaos in the last minutes before the judging began, and then, pushing aside water bottles and wet boxwood to find a resting place for his equipment, he asked wearily, "Do you folks do this every year?"

Indeed we do! For all sorts of reasons: we like daffodils, we like daffodil folks, and we keep coming back to see the new daffodils.

Many of the very newest cultivars were crowd-pleasers in 1980. Grant Mitsch's 1978 jonquil Canary was a top choice at LaCanada, and Vigilante, 1977, "took honors as the best white over stiff competition." Blushing Beauty was a favorite in Dallas, Red Hot in Cleveland, Gin and Lime at Princeton, Stylish in Wilmington, and Cophetua in Chillicothe. Pure Joy was chosen the best American-bred daffodil in both the Nashville and Columbus shows, and of Green Gold it was said at Plymouth Meeting, "As last year, this daffodil was a winner because of its coloring."

One exciting aspect of any medium or large daffodil show is the commercial exhibit. At Fortuna, chairman Ferne Garbutt reported, "An excellent exhibit from Grant Mitsch and the Havens received much attention. Of course their newer pinks caused much excitement!" At a show such as the convention show in Memphis, the commercial exhibits are so extensive that amateur photographers and diligent note-takers would study the exhibits into the early morning hours if no one set a closing time.

One interesting comment was overheard near these exhibits. Two ADS members were browsing, commenting, making note of cultivars they liked. They stopped in front of the Mitsch species hybrids, and after much scrutiny, one of them said, "I'm not really sure I like Surfside. I think it's too big for a cyclamineus." Another visitor, who had been standing there silently, leaned over and commented wryly, "Don't worry. It won't look like that in your garden."

But we want daffodils to look in our own gardens the way they do in the shows. Maybe that's the secret of these older flowers which keep appearing not only on the awards tables but also on the "top favorites" lists down to the second and third generation after they were introduced.

Only three daffodils appeared twice on lists from thirty show chairmen. These were the 2 W-Y Festivity (1954), the 3 W-W Angel (1960), and the 3 W-YYP Audubon (1965). But these three are newcomers compared to some of the crowd pleasers this season. The report from Chillicothe commented on a "Cantatrice bloom in the Purple Ribbon winner which was very large and beautiful." Cantatrice was introduced in 1936. Woodvale (1947) and White Lion (1949) were listed as two of the favorites at Princess Anne. Tamino (1939) and Tannhauser (1950) were among those the public liked best in Dallas. The chairman at Chaska mentioned "one of the best Spellbinders I've ever seen" as a crowd favorite. Spellbinder was introduced in 1944. At Oakland, Silver Chimes (1916) attracted much comment "because of the large bunches of florets, up to 13 per stem, and of good size."

1980 was a very good year for Division 3 flowers. Achduart, the Gold Medal winner, and Kimmeridge were crowd favorites in Memphis; Park Springs was much admired at Chapel Hill and in Barbara Abel Smith's convention exhibit. Merlin was a top choice in Indianapolis and Gowo at Chillicothe, as were Silken Sails in Princeton and Olathe in Dallas. Angel was noted in Atlanta and Princess Anne for its sparkling beauty. An outstanding bloom of Audubon in a Quinn entry at Hampton was singled out, and another one won at Corona del Mar over many other fine daffodils.

What makes a crowd favorite? Maybe one way to tell is to look at the comments on show reports from Scottsburg and LaCanada. Daffodil growers from this small Indiana town and this mid-sized Los Angeles suburb don't choose the same cultivars; it's their reasons for choosing that are important.

Mrs. Verne Trueblood listed the four favorites in Scottsburg: "Charter—size, color contrast and such a neat flower; Damson—very old yet outstanding in color and substance; Water Music—looked regal in its class; good substance and form; Surfside—Gold Ribbon winner, neat, clean, heavy substance." Jay Pengra, choosing favorites at LaCanada, commented: "One of the best Peace Pipes I've ever seen was runner-up to a nicely presented Tangent of great substance. Vigilante took top honors as the best white. Strongly-reversed Canary won a special award; Ives showed rich color. Smooth vigorous Stratosphere was recommended to all growers. Blue ribbon winner Bell Song reported to have vigor."

What do Damson (1925) and Water Music (1975), have in common, or species hybrids such as Bell Song and Surfside and Canary have in common with such regal trumpets as Peace Pipe and Vigilante?

Their color is excellent, their substance is heavy, and in the garden they are what Mrs. Nell Richardson called "good doers." They do what they are supposed to do, and in this spring of 1980, they did just a little bit better than their best. That's what makes them the favorites of this season.

BULLETIN BOARD

DUES PAYMENT

Many of our members have a delightful habit of paying their dues in advance. Only a few stay in arrears until they receive a final notice. Quite a number of our members, without bidding, send in checks for three-year memberships every year or so and are paid up for nearly the next decade. There have been at least two instances where honored long time members, through a series of misadventures, found themselves with drop-out notices which was very embarrassing to them and to the Executive Director. They both scotched this by sending in checks for \$100 for Life Memberships.

Since there is some misunderstanding about ADS dues policy, a review might be worthwhile. Memberships, either one year or three years, can begin at any quarter of the year—not just with January. One month before a membership expires a dues notice is mailed out. If this is not answered a reminder is put in the next *Journal*, which is actually a bonus *Journal* to a wayward member. If this is not answered by the time of the next *Journal* mailing a Final Notice post card is mailed and that is it. Each of the three notices gets a fair share of responses. One Final Notice card was returned with a note saying "Goodbye." A few months later we received a letter from the lady saying, "I just can't stand it. Please renew my membership." A membership card is only sent upon request. All dues payments as well as all money matters, either payments or bills, should be sent to the Executive Director.

FROM THE PRESIDENT'S DESK—JULY

Affairs of the Society are moving along apace. Two new daffodil display gardens will be planted this fall, one at the River Farm headquarters of the American Horticultural Society in Mt. Vernon, Virginia; and the other at Riverside Gardens in Wheaton, Maryland, a fine horticultural center sponsored and funded by the Maryland, National Capital Park and Planning Commission. There are plans for more, in other regions.

Along with many other plant societies, the ADS will participate in Exhibition 50, a celebration to mark the 50th anniversary year of the National Council of State Garden Clubs. The setting for this exhibition will be the beautiful headquarters building of the Organization of American States in Washington D. C. Our exhibit will document the achievement of Dr. Tom Throckmorton in setting up the Daffodil Data Bank and in inventing the Color-coding Classification System. Phil Phillips will send us some daffodil blooms from New Zealand to illustrate our exhibit.

A new edition of *Daffodils to Show and Grow* will be printed this fall. A new committee has under consideration ADS awards for cultivars as they grow in gardens and another hard-working committee is preparing the material for a new *Handbook for Exhibiting and Judging Daffodils*, to be published in 1981.

To top all this off, I have news from Bill Ticknor that we have twenty new members from Japan! This gives us 31 Japanese members—more than any other foreign country and more than in 30 of our own states. Come on, all you good Americans, Dutch, Irish, and Englishmen, and Kiwis, we can't let Japan get ahead of us like that!

Lifting daffodil bulbs has been a real joy this summer, with super increase and big, firm bulbs. Thank you, Mr. Weatherman, for all those showers in April and May. Now if you will just arrange clear weather for September and October, when we will be planting again, all will be well.

JUDGING SCHOOLS

Daffodil Judging School Course II will be held in May, 1981, in Minnesota. Contact Julius Wadekamper, 10078 154th Avenue, Elk River, Minnesota 55320, for information.

Daffodil Judging School Course III will be held April 13, 1981, in Richmond, Virginia. Contact Mrs. Lester P. Belter, Rte. 2 Box 217A, Mechanicsville, Virginia 23111, for information. Instructors are Mrs. Howard Bloomer, Mrs. Merton S. Yerger, Mrs. Ernest K. Hardison, and William G. Pannill.

No requests for approval for Course I in a new series of schools have been sent to the ADS Schools Chairman as yet. Any group of ADS members who would like to hold the series of three courses in its area may ask the Regional Vice-President to appoint a Local School Chairman with the approval of the National Chairman and the ADS President. Experience indicates that for a successful series there should usually be a nucleus of ten students to start with. Advertising the school in the Regional Newsletter as well as the *Journal*; making announcements to garden groups and Horticultural Societies, whose members may well join ADS as a result, may gain additional students. ADS makes no provision for financing such schools but can offer advice on a probable fee to be charged for registration. Instructors must be approved by both the ADS President and the Judging Schools Chairman. The required approvals should be requested before December, 1980, for schools planned for Spring 1981.

—MRS. MERTON S. YERGER, *Judging Schools Chairman*

POST CONVENTION TOUR TO OREGON IN 1981

Some of our members have expressed a wish to tour California and Oregon by bus after the Newport Beach Convention in 1981.

The escorted tour would be seven or eight days starting from Newport Beach and concluding in Portland, Oregon.

We will tour the beautiful Pacific Coast to Monterey/Carmel, then cross the San Joaquin Valley to Yosemite National Park. We would then drive to the California wine country and finally fly to Portland, where we will visit Grant Mitch.

If you would be interested in further information, please send a self addressed, stamped envelope by November 1, 1980, to: Ms. Marilyn Howe, 11831 Juniette Street, Culver City, California 90230. Phone: (213) 827-3229 - after 6:00 P.M. or during weekends.

ADS AWARDS INFORMATION

1981 Daffodil Show information should be sent to the Awards Chairman by October 10 for inclusion in the December issue of *The Daffodil Journal*. The information needed includes: name of sponsoring organization, date of show, type of show, city in which it is to be held, location of show, and name of person to be contacted for information with address. This is to be sent to: Mrs. Phil M. Lee, 6415 Bresslyn Rd., Nashville, Tennessee 37205.

Reminder: ALL schedules MUST be approved by the ADS Awards Chairman BEFORE having them printed. TWO copies of the schedule are to be sent. The corrected one will be returned to you for printing. After the printing has been done, one copy is to be sent to the Awards Chairman.

AWARD AMENDMENT

The Maroon Ribbon description has been changed to read: The Maroon Ribbon of the American Daffodil Society, Inc., will be offered for a collection of five standard reverse bicolor daffodils, any division or divisions. (Perianth colored, corona paler than perianth.)

NOTICE OF ADS BOARD MEETING

The Indiana Daffodil Society will sponsor the autumn meeting of the ADS Board of Directors on September 26 and 27 at the Sheraton West Hotel in Indianapolis. Details have been mailed to members of the Board.

DAFFODILS 1980

The delightful RHS publication, *Daffodils 1980*, has the Executive Director perplexed! Due to the weak dollar and high British printing costs, the publication has gone up sharply in price. At this writing the exact cost to ADS is unknown and a price to members cannot be set. Following the experience of the last two years it is doubtful that copies of the book will be received in this country until mid-December. Therefore a notice will be put in the December *Journal* as to the new price and the book's contents. Since the price is rising there will *not* be an automatic mailing to regular customers. All members will have to request the book.

DAFFODILS TO SHOW AND GROW

Three years ago when we were becoming desperate for a new classified list of daffodil names, Dr. Tom Throckmorton and the Society brought forth a new publication—complete with the new revised classification system. Fifteen hundred copies were printed and all fifteen hundred have been sold.

There is a constant ongoing demand for this book and, besides, it is now out of date by three years. At the fall meeting in 1979, the Board of Directors determined that a new and current edition should be published in 1980.

While daffodil people from all over the world will contribute to this publication, it is essentially an epic effort on the part of Dr. Tom Throckmorton and his wife, Jean. Mary Cartwright, ADS Chairman of Publications, will oversee its publication.

For those not acquainted with *Daffodils to Show and Grow*, it describes and classifies the 5,000 or so daffodils that members are likely to see or to read about. It not only describes color and form but names the raiser, date of introduction, gives season of bloom, and so on. A new feature of this edition, a contribution of Mary Lou Gripshover, will be a list of hybridizers and their nationality.

The price for this new edition is \$4.00. It will be mailed out late this fall in rotation as orders come in. Those who send in their checks early will not only be the first to receive copies but they will help the Society in meeting the printing bill.

—W. O. TICKNOR, *Executive Director*

DAFFODIL CULTURE

(from the outline for Judging School II)

MRS. MERTON S. YERGER, *Judging Schools Chairman*

The requirements for growing exhibition daffodils are: good soil, adequate moisture, fertilization, good drainage, cool growing conditions, and plenty of sunshine. New bulbs should be ordered early and it is best to prepare the planting area in early summer so as to allow the soil to settle before the bulbs are put in. Advice of the local County Agent or Agricultural Extension Service should be obtained for unusual situations. Good cultural practice involves:

SOIL PREPARATION

1. Good drainage by situation such as hillside or slope; otherwise prepare raised beds.
2. Good drainage by soil texture with the help of proper additives such as:
 - a. Sand
 - b. Peat moss — light application to heavy soils, heavy application to light soils.
 - c. Gypsum if needed to improve soil texture. (Does not alter pH. Adds some calcium.)
 - d. Give soil thorough digging 12" to 18" deep, as deep digging encourages root penetration.
 - e. Mix fertilizer through entire area but it does not need to go 18" deep.
 - (1) No fresh manure should be used EVER — material added should meet local needs.
 - (2) Processed manures are permissible if bed is allowed to weather a few weeks, but is not particularly desirable in warm areas.
 - (3) Use low nitrogen fertilizer, 3-10-6 at the rate of 3 pounds per 100 sq. ft. Use half that rate for 0-20-20.
 - f. Soil reaction should be slightly acid and should be brought to that degree by means recommended locally.

PROPER PLANTING

1. Depth will depend on size of bulb, kind of soil, and whether bulb increase is desired.
 - a. Shallow planting encourages bulb increase.
 - b. Average depth for large bulbs is 6" to 8" deep from base of bulb to top of ground.
 - c. Plant more shallowly in clay soil.
 - d. Water newly planted bulbs thoroughly.
2. Space about 6" to 9" apart, with bulbs of the same cultivar in a clump pattern.
3. Time of planting should be as early as received in cool climates, and as soon as soil cools off in warm climates, to permit maximum root growth before cold weather.
4. Some bulbs do well in a naturalized situation. Naturalizing may be done in sod, orchards and fields, thin woods.
 - a. Make hole with crow bar, broad spade or mattock. Drop in handful of sand and bonemeal mixture, replace sod or fill hole with sand if crow bar is used.
 - b. Leave foliage on plant until mature.
5. Planting location is best in full sun in moderate climates. In hot dry climates half shade is best, except that red cups need broken shade or temporary shade to prevent fading. Planting under evergreens or trees with heavy surface roots should be avoided.
6. Mulching
 - a. In warm climates may be applied at blooming time to keep flowers clean.
 - b. In cold climates may be applied in late fall or early winter to prevent deep freezing and thawing; also helps keep flowers clean.
 - c. Mulch may be ground corncobs, pine needles, etc. — whatever is clean and available in the area.

FERTILIZATION OF ESTABLISHED PLANTINGS

1. No one fertilizer is properly tailored for all soils. A low nitrogen fertilizer customarily used for root crops - 3% Nitrogen, 10% Phosphorus and 6% Potash, used at the rate of 3 pounds per 100 sq. ft. is a safe fertilizer even though it may not be the perfect one for your soil. (The perfect fertilizer should be determined by soil test.)
2. When the above fertilizer is to be used as a top dressing, it is best applied in three applications — one in the fall, one at spring emergence, one at flowering.
 - a. Watch leaf color and growth to see that leaves are not too dark a green or too tall and limp. (Stop fertilization if these symptoms appear.)
 - b. Excess Nitrogen contributes to basal rot, and also encourages foliage at the expense of flowering.
 - c. Calcium nitrite solution (2 tbsp. to a gallon of water) may be watered onto the plants, just as buds begin to emerge, to intensify color.

SPECIAL CULTURE FOR MINIATURE DAFFODILS

The culture of miniature daffodils differs from the standard cultivars in that the bulbs are not as large; therefore not planted as deeply. A well drained soil is important. The depth of planting depends on the size of the bulb; very small bulbs should be planted about two inches deep. The larger ones should be about three or four inches deep. Usually this will position the bulb so the soil covering is about two and a half times the height of the bulb. The very small bulbs are best grown in plastic or hardware cloth baskets sunk in the ground, which can be lifted to sift out the bulbs when they are divided. More frequent division is desirable for species and cultivars which tend to go quickly to leaves and bear no flowers. Some cultivars produce their foliage in the fall and are not likely to survive the winter unless covered with a loose mulch of salt hay or excelsior.

Miniatures should be fed sparingly, especially the species which often come from rocky hillsides where drainage is excellent. A little super-phosphate or fireplace ashes, as a source of potash, and some humus is usually sufficient. Most cultivars, except cyclamineus which prefers damp shade will be the better for a good baking in hot dry soil in summer, except in warm climates where they will probably benefit from some shading.

The cultivars are likely to be more dependable than the species and other wild forms which may vary considerably in their requirements. Some are more tender than others and will need mulching or coldframe protection in cold climates. If mulching is desired it is best to avoid plant materials because of root competition. Pebbles, chicken grit, pine bark are good.

Some of the species have a tendency to die out after a few years. In nature some species reproduce from seed rather than from offsets so are not long lasting in the garden. However, most seed readily and when the seed is scattered those that find the growing conditions to their liking may do very well.

BITS AND PIECES

(from the Northeast Region Newsletter, Spring, 1980)

On the table where I'm typing this sits a poinsettia, its "blooms" as bright a red as when it came into the house before Christmas. Last winter in the same spot a *Paphiopedilum* orchid held its curious "lady-slipper" bloom up to our view for six weeks or more. Soon I shall replace that poinsettia (I never cared much for in the first place) with daffodil blooms—blooms which will last four or five days at the most. Ay, there's the rub!

Over the years I've tried commercial products alleged to prolong the life of cut flowers. I've added sugar to the water; I've added aspirin. I couldn't see an hour's longer life resulting from any of these. Now along comes a new chemical preparation from France, said to "double, triple, or even quadruple the life of cut flowers." Called Sevaflor, it is described in the current issue of *Garden*, published by the New York Botanical Garden, and I find it impressive that Sevaflor is being sold by this prestigious institution. Who's game for testing it? \$2.25 will buy it from: *Garden Magazine*, NY Botanical Garden, Bronx, NY 10458.

I would not be so greedy as to ask Sevaflor to quadruple the length of time I can have a bouquet of Festivity on my table—if it would give me eight days instead of four, I'd be overjoyed. Still, I am a skeptic.

—RICHARD EZELL, Chambersburg, Pennsylvania

Vol. 12, No. 6 of the *Avant Gardener* says that another aid to prolonging cut flower life is being investigated at the USDA Postharvest Physiology Laboratory, Beltsville Agricultural Research Center. Researchers added ethylene inhibitors to a commonly used preservative solution.

It almost doubled the life of carnations, chrysanthemums and snapdragons, and gave slight increases in longevity of irises, daffodils, and roses.

TWIN SCALING—OR WHAT ELSE IS NEW?

While browsing through Matthew Zandbergen's extensive library in early May, I ran across an old copy of *The Dutch Gardener* containing an article by Henry van Oosten, translated into English in 1711, entitled "To Get Plenty of Offsets of Hyacinths." As was the English practice at that time, the letter "S" is represented in the old fashion resembling our letter "f" which I use in this transcript, although not strictly accurate. Those who have recently been introduced to the process of twin scaling may find this article of interest.

Chapter XLIII

Although Hyacinths are not very prone to give Plenty of Offsets, you may force them to it. This will seem very Strange to many, but Experience teaches the Truth of it. Take a great Bulb of a Hyacinth, cut it with a pen-knife into the third Coat, yet not with the Heart of the Plant, and this in four Parts to the Bottom of the Bulb, where the Offsets come out; and by this way you will have the next Year four instead of one Bulb. I have never heard that the Bulb of any other Flower would do the like, though I believe the Narcissus is of the same Nature.

—CHUCK ANTHONY, Bloomfield, Connecticut

EYSTETTENSIS



Eystettensis (Anthony photo)

Eystettensis is a charming, pale lemon miniature double. It is probably a cross between a triandrus and a double trumpet, possibly Van Sion. It is a star-shaped bloom and in its ideal form the petals and sepals are layered perfectly, becoming smaller and smaller toward the center. It increases by bulb offset only.

Mr. VonGemmingen grew it in his garden in Eystetten, Holland, in the early sixteen hundreds and hence its name. It is also known as Queen Anne's double for Queen Anne of Austria (not to be confused

with Queen Anne's double jonquil). It is sometimes sold as *N. capax plenus*.

It will grow in either full sun or a semi-shady spot. It blooms early enough so that it does not blast as do the other miniature doubles I grow, viz. *Pencrebar* and *Kehelland*.

—AMY COLE ANTHONY, *Bloomfield, Connecticut*
AN INNOVATION

There has been much discussion and some controversy about whether judges should make entries in shows they are judging.

At its 1980 show the Delaware Daffodil Society introduced what could be a solution to this dilemma—they created a Judges' Section. Judges were invited to make up to three entries of different cultivars in one bloom and three bloom classes and an unlimited number of entries in seedling classes. These entries were then judged by a panel of D.D.S. judges.

The advantages of such a category are many:

1. No judge has to "stand back." If you have ever judged a class with perhaps only one entry and had a judge on your panel stand back, you know how disconcerting this can be.

2. It gives the Judges' Chairman more flexibility. Often it is necessary, at the last moment, to change judging assignments.

3. If many judges participate it affords an opportunity to see blooms from other areas with different growing conditions and blooming period. Many judges are excellent growers so this portion of the show could have some exceptionally outstanding material.

4. Student Judges would have no hesitancy entering a section created especially for judges. This would assist them in acquiring ribbons for their accreditation.

The Delaware Daffodil Society gave a special award for the best bloom in the Section.

There may be some disadvantages to having a section devoted exclusively to visiting judges; however, the judges who entered blooms this year in the D.D.S. Show had only praise for the innovation. The Show Committee has unanimously agreed to include it in the schedule for '81.

—JOY MACKINNEY, *West Chester, Pennsylvania*

SHOW SUGGESTIONS

1. If you have storage problems for your permanent supplies, maybe someone has a storage shed or empty stable with flooring that is dry.
2. Colored paper may be bought in large rolls and cut to the desired length. When show is over, it may be sold to be used for wrapping paper.
3. Colored flat sheets may be found on sale and be bought in quantity. These have the advantage of being washable and re-usable.
4. Storage boxes may be used, covered, as steps to better display entries. Flowers show to better advantage when staggered in height. Be a scavenger. Check local stores for give-aways. Boxes should be fairly substantial if heavy containers are used.
5. Have a separate table for main award winners. These may be displayed with the awards each won.
6. Step up the Best Flower in the Show by covering any box with appropriate material. Show off the Best!
7. Have classes for people who grow less than 75 (or whatever number you choose) cultivars. Many who grow only a few are hesitant to compete with people who grow large numbers.
8. Have a collection class for those who have NEVER won a Blue ribbon in a collection class in your show.
9. Everyone has at least one "What's it"—most of us have several! Have a separate table where these "What's its" can be brought and identified by other exhibitors. Set a limit per person unless you're trying to fill up a warehouse.
10. If time and Judge-power permit, have the "What's its" judged . . . not to be counted for ADS awards. A little encouragement is all some people need to become valued exhibitors.

If anyone has some tid-bit to add to this, please send to Mrs. Phil M. Lee, 6415 Bresslyn Rd., Nashville, Tennessee 37205. If enough ideas come in, another list may be printed.

DAFFODIL CONSULTANT?

The American Rose Society and each of its local chapters have designated Consulting Rosarians who receive a certificate of recognition and may purchase an attachment for their Rose Society pin. The appointment is made for three years in recognition "of special knowledge of roses and rose culture and for enthusiastically fostering the aims and purposes of the Society through furnishing assistance to its members whenever possible."

Their names are printed in show schedules and furnished to extension offices.

I am of the opinion that the American Daffodil Society should consider the establishment of Daffodil Consultants to provide recognition to certain members and make information for newer members and prospective members more easily available.

Richard Ezell has given me his permission to use a quote of his from the Northeast Region newsletter. It was this statement by him which led me to consider submitting this article.

One of our newer members asked me recently about inclusion of a name for "information" regarding each show. "What sort of information might we want from them?" Good question. These contact people are listed chiefly in order to supply, upon request, a copy of the Show Schedule, and this document will answer most questions you might have:

awards, rules, special conditions, and entry times. But they will happily answer other questions as well, such as supplying detailed directions for reaching the show location, for those unfamiliar with the area. Additionally, all those above are experienced daffodil growers and showers, and will be glad to offer advice and suggestions to novices. Give them a try.

I would be interested in knowing how the members of the American Daffodil Society feel about the suggestion of establishing the position of Daffodil Consultant.

—DR. JOHN L. TARVER, JR., *Hampton, Virginia*

THE ANGEL'S TEARS

Narcissus triandrus is a lovely miniature daffodil because of its reflexing perianth and blooms which grow in clusters on stems about six inches in height. It has a common name of Angel's Tears. The ones that I have are creamy white (*albus*) but there are yellow ones, too. The seed heads are left after the blossoms fade for the seeds to fall and naturalize. Of course to increase the drift, small bulbs can be bought and planted in early September. Plant them in a sheltered place in order to protect these small plants from early frosts and freezes. During late April these little daffodils certainly announce that spring is on the way.

I wonder if all know where the name Angel's Tears originated? Bernard Alfieri says in *Amateur Gardening* that Mr. Peter Barr of England was on a bulb collecting trip. A bag containing the *N. triandrus albus* was left at one of the stopping places by a boy named Angelo. Mr. Barr sent Angelo back for the bag of bulbs and he cried so bitterly that Mr. Barr christened the bulbs Angel's Tears.

—MRS. RALPH CANNON, *Chicago, Illinois*

(From Matthew Zandbergen by way of Roberta Watrous comes this undated letter written by the son of Peter Barr with a slightly different twist to the story.)

To the Editor of *The Gardener's Chronicle*:

Dear Sir,

Will you allow me to comment on a statement made in your issue of May 5th with regard to the origin of the name of Angel's Tears given to *Narcissus triandrus albus*. It does not agree with story told by Peter Barr himself. Somewhere about the early spring of 1888 he was traveling through the northwestern provinces of Spain accompanied only by a young Spanish lad, whose Christian name was Angel and who had been taught a little English by a Cornish mine inspector living near Ponferrada called Nancarrow. The latter gentleman and his wife had started a Sunday school in the village where they were living, and Angel had formerly been one of their pupils. On one occasion while among the mountains Peter [Barr] spied what looked like a white *triandrus* some distance up a rather steep slope and sent Angel up to collect some bulbs. The going was rough, and the sun strong, so that by the time Angel returned with the bulbs, he was both weary and cross and commenced to cry. Peter Barr then labeled this bag of bulbs (which turned out to be *triandrus*) Angel's Tears. When they bloomed the following year they were found to be of a stronger growing type of *triandrus albus* than that found in Portugal. The one who was always very helpful to Peter Barr when he was traveling in Portugal was the late Alfred Tait (Baron de Soutellino) at whose house in 1887 he was a guest for some time. The late "Baron," as he was called, was a great enthusiast and had a garden of all sorts of rare plants in Oporto. He was the first to rediscover *Narcissus cyclamineus* after it had been lost sight of for two or three hundred years.

Peter R. Barr.

DAFFODIL JOURNAL WINS AWARD

At the national convention of the National Council of State Garden Clubs, Inc., held May 11-14 in Oklahoma City, the ADS was presented the Award of Merit for "excellence in horticulture education" for the four issues during 1979 of the *Daffodil Journal*.

Mrs. Vernon Kelley, President of the Tennessee Federation of Garden Clubs, Inc., accepted the award and has forwarded the certificate to me. It is my hope that all who contributed articles to the *Journal* in 1979 will share in the satisfaction of contributing to the success of the *Journal*.

—MARY LOU GRIPSHOVER

THE THROCKMORTON YEAR

From a purely biased daffodil point of view, every year is Dr. Throckmorton's year. He continues to hybridize his "toned" cultivars. He keeps the *Data Bank* current by the addition of the many newly registered cultivars. Your *Journal* comes to you with names and addresses by the computer under his direction in Des Moines.

His work has been recognized by The Royal Horticultural Society of Great Britain. This Society is the international registration authority for daffodils and was the first central registration place of these cultivars.

Several years ago the RHS presented the Peter Barr Memorial Cup to Dr. Throckmorton. Many other organizations have acknowledged the value of his work in color classification with suitable tributes.

In March of this year the American Daffodil Society honored him with the Gold Medal of the Society. This is not an annual presentation of the Society but given for an outstanding contribution.

This was followed a month later by the Garden Club of America's Distinguished Service Medal given for "his dedication to the genus *Narcissus*." Only two other daffodil specialists, Mrs. J. Lionel Richardson and Mr. Grant Mitsch, have been so recognized by the Garden Club of America.

DR. GLENN DOOLEY

Dr. Glenn Dooley, who had been chairman of Round Robins for twenty years, died on May 29 at the age of 75.

He was retired from Western Kentucky University, where he had been a chemistry professor for 28 years. A charter member of the ADS, he was appointed a judge to serve until sufficient accredited judges were trained through the schools. He was interested in hybridizing and was primarily concerned with the health and vigor of the seedlings.

A member of several professional societies, he was a member of the Kentucky Daffodil Society and the Kentucky Gladiolus Society which he had organized.

His hobbies included photographing county courthouses and researching the Dooley family genealogy.

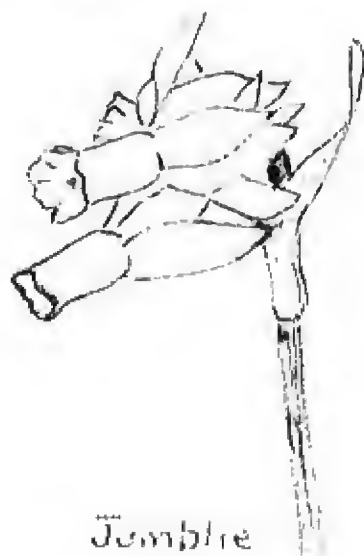
To his wife and family we extend our sincere sympathy.

THE JOYS OF GROWING MINIATURE DAFFODILS

FRANCES ARMSTRONG, Covington, Virginia

(From the Newsletter of the Middle Atlantic Region, February, 1980)

While in other fields I have never been inspired to collect or to admire little things particularly, I must admit to being thoroughly enchanted by the small daffodils.



The reasons for this love affair are many. Surely the premier one would be that a goodly number of them bloom early in the spring, far ahead of their larger counterparts, a very important attribute in our highland climate. I fondly recall in the cold blustery March when our younger daughter was married her bridesmaids' excitement on discovering the golden yellow blooms of Wee Bee, Tête-a-Tête, Cyclataz, Mite, and Jumble flouting snow flurries and wind in the two southern corners outside our living room windows. They did not know such treasures exist. How often do we hear that remark at shows and displays!

At the other end of spring, strangely enough, the "minnies" are the last of the daffodils. In most seasons Baby Star and Baby Moon bloom freely throughout the month of May.

The miniatures' undemanding space requirements endear them to me in this region of shale and hard clay soil which needs an inordinate amount of preparation. Just tuck them away in unused corners, around shrubs, or in front of the larger daffodils and they thrive happily in ground prepared to one spade's depth or, for the very small bulbs, in clay pots and berry baskets buried with a little gravel thrown underneath for drainage.

Then aside from season and space I love them for their intrinsic grace and charm. The pristine perfection of Xit, the graceful pale yellow bells of April Tears, and the jaunty deep gold blooms of Quince would soften the heart of the meanest Scrooge.

Perhaps the biggest difficulty in growing miniatures is their acquisition. Over a quarter of the ones on our ADS Approved List of Miniatures are currently unobtainable from any commercial source. However, the bright side of the coin is that most of the prolific, easily grown ones are readily available. So, for the uninitiated, begin by providing yourself with some of the easily obtained yellow trumpets: Wee Bee, Small Talk, Bagatelle, Little Gem, and Piccolo. Bicolor Little Beauty is available as is Rupert, a better flower but very slow to increase. W.P. Milner, a 1 W-W, is also available but, while good for garden decoration, will rarely win a ribbon in a show if that is your desire.

Really good Division 2 miniatures have either not been bred or are unobtainable. Marionette is a gross flower on a short stem; Mustard Seed is preferable but also large flowered. Tweeny always blasts for me. I am unfamiliar with the other three in this division.

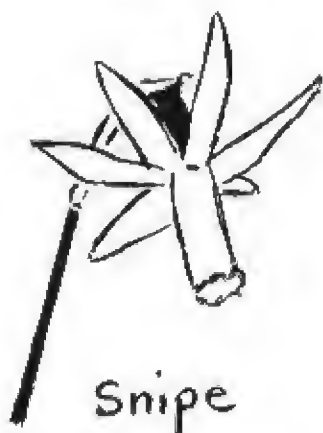
The third division little ones are better. Segovia has near perfect blooms on tall stems and increases quickly. Yellow Xit, much like Segovia, and beautiful white Xit are widely and well grown in the Chesapeake Bay area. Paula

Cottell multiplies rapidly but is rather large. Picoblanco, a nice little 3 W-W, succumbed to rot the first season but I hope to try it again.

The wee doubles are a problem, being extremely sensitive to wide temperature fluctuations which abound here in the mountains. Even with protection the buds fail to open properly if at all.

The triandrus division flowers are truly among the loveliest. Of the fourteen triandrus hybrids on our miniature list two are readily obtainable, two can be had from one source each, the remainder I could not find listed anywhere; indeed, it is questionable that some of them still exist at all. April Tears and Hawera, plentiful and inexpensive, are both ethereal. Alas, they have the unfortunate habit here of thriving and multiplying for many years; then suddenly one spring, nothing. This has been a great frustration for these lovely hanging bell triandrus hold me completely in their charm. Mary Plumstead is similar to the above two but grows less freely. Frosty Morn, a larger white cultivar, has grown and increased well here but to my knowledge was not listed anywhere last year. Cobweb, an even larger one with a flatter corona, cheerfully flaunts its rather gross bloom while the daintier ones languish.

Raindrop, an Alec Gray origination which he subsequently lost, I understand survives in this country only through the growing expertise of Betty Darden and her generosity in sharing it with others. It is absolutely captivating when exhibited in eastern shows but is not available commercially.



It is in the sixth and seventh divisions that the miniatures really star. The cyclamineus are my favorites for their abundant bloom so early in the season which comes through frost and snow unscathed. Tête-a-Tête, Mite, Jetage, Jumblye, and Quince along with the trumpets Wee Bee and Little Gem are my golden harbingers of spring. Little white Snipe with its long nose has increased happily here for many years; apparently it does not do well in warmer climates or even in the British Isles as only one grower has it for sale and that one for a hefty price. In addition to cool weather I believe it prefers an

acid soil as the largest blooms come from bulbs planted between azaleas.

The jonquil division bulges with miniatures. They mostly fall into two types: the small multi-flowered ones resembling *N. jonquilla* such as Baby Moon, Baby Star, Pixie, Pixie's Sister, Chit Chat, etc., and the larger ones, often single flowered, Sundial, Sun Disc, Bobbysoxer, Stafford, Rikki, Clare, etc. That is not to say that they are completely similar; they vary in size, color, and time of bloom, but many are quite alike. On the distinctive side, Sea Gift has longer cups than other miniature jonquils but is rather rough. Flomay is a delightful wee jonquil with a pink cup. Most jonquils are easily grown.

In Division 8, Cyclataz has thrived and multiplied in our garden but has not been listed in recent years by any commercial grower that I can find. Pango survives but does not multiply. Minnow is pure joy with its dainty cluster of blossoms. It increases rapidly and is easily obtained. Halingy is not hardy here but is charming in the Tidewater area.

Of the miniature species and wild hybrids (Division 10) most seem to prefer a warmer climate than found in the mountains. *N. jonquilla* grows well but not with the abandon with which it performs in eastern Virginia and the

South. On the whole I believe the species should be left to the experts and those willing to grow them from seed. Many of them are being depleted in their natural habitat as they are collected for commercial trade.

For those willing to go to a bit of trouble, forcing the miniature daffodils in pots for winter bloom inside the house is quite rewarding. The small pots require little room and may be placed in a refrigerator for four to six weeks for their cold period. Gradually bringing them into light and warmth will force the bud at which time they need sunlight to bloom. Daily spraying is beneficial.



N. bulbocodium

The early blooming cultivars do best. I have often forced extra bulbs of Wee Bee and Tête-a-Tête with excellent results. This past winter I was fortunate to receive two bulbs of *N. bulbocodium monophyllum foliosus* from a friend. Our January was brightened with three beautiful and unusual white blooms. Having no bees around to pollinate I took a brush to the anthers and stigma and am now nursing a fat seed pod with great anticipation. This experience has made me want to acquire some of the other tender bulbocodiums for growing in pots next winter.

The best sources for miniatures are The Daffodil Mart (67 listed in 1979), Broadleigh Gardens (42 listed in 1979), and Charles H. Mueller (33 in 1977, my latest price list). The Washington Society Bulb Order offered 24 miniature species and hybrids in 1979. Others who may list a dozen or so are Murray W. Evans, Mary Mattison van Schaik (handles Gerritsen's introductions and a few others), Michael Jefferson-Brown, and Grant E. Mitsch Novelty Daffodils. All the above addresses may be found on page 35 of the 1979 Roster.

ADS BOARD OF DIRECTORS MEETINGS, MARCH 27-29, 1980

(Abridged from the report of the Secretary)

Forty-eight directors were present.

Mrs. Hardison paid tribute to Mrs. Simms. (See June Journal)

The Treasurer, Mr. Knierim, reported the Society to be in "good financial shape."

Regional reports were received from all nine regions. Ms. Howe stated that the 1981 Convention would be held at the Newport Inn in Newport Beach, California, on March 26, 27, and 28.

REPORTS OF COMMITTEES:

AWARDS: Mrs. Lee has written or revised and printed several procedures and forms. A Red-White-Blue Ribbon was sent to Omagh, Northern Ireland, for presentation at their show.

CLASSIFICATION: Mrs. Anthony stated that changes in the color code were published in the December, 1979, Journal.

DATA BANK: The Data Bank will be updated in August. The symbol "V" will be introduced into the Data Bank to alert judges to those daffodils which are variable in color. This symbol would not be part of the color coding.

EDITOR OF JOURNAL: Mrs. Gripshover said that enough material has been received to continue a 64-page Journal. She thanked Mr. Knierim for his willingness to supply pictures to enhance articles. The committee is evaluating the results of sending the March issue without an envelope.

HEALTH AND CULTURE: Mr. Wheeler reported no requests for help since the fall meeting.
JUDGES: Mrs. Barnes reported an anticipated increase in the number of judges for the coming year.

LIBRARY: Mrs. Bloomer mentioned a gift from Jan deGraaff and suggested that it be applied towards binding our Journals and Yearbooks. She will bring estimates to the fall meeting. An Alec Gray book has been added to the library. Dr. Throckmorton announced that he had been given Mr. J.M. deNavarro's five stud books. These will be placed in the library.

MEMBERSHIP: Mrs. Thompson stated that we now have 1449 members.

MINIATURES: Mrs. Macneale reported that her committee is working toward a slide collection of all miniatures. The committee favors de-listing several miniatures. October will be the deadline for comments on the list.

PHOTOGRAPHY: Since January 1, Mrs. Stanford has received 17 requests for slides. The primer series is still the most popular. She has purchased four carousel mailers. Mr. Knierim has contributed 265 new slides which she has used to update existing sets.

PUBLICATIONS: Mrs. Pardue reported that the committee has continued to assist the Editor of the *Journal*.

PUBLIC RELATIONS: Mrs. Perry has written to eight bulb dealers in this country who handle Dutch bulbs requesting that they use the proper terminology in their catalogues. Favorable responses were received from five. In correspondence with the *American Horticulturist*, she found that they would welcome articles by ADS members.

REGISTRATION: Mrs. Anderson will deliver her report at the Fall Board Meeting.

SCHOOLS: Mrs. Yerger announced a number of schools. She reviewed progress in revising the *Handbook*.

SHOW REPORTER: Mrs. McKenzie indicated that Mrs. Lee has been most helpful in providing material for the Show Report.

SYMPOSIUM: Mrs. Moore thanked last year's reporters and the editor for making the symposium report successful.

TEST GARDENS: Mr. Thompson presented a brief overview of the various test gardens in Arkansas, Minnesota, and Clemson, South Carolina.

EXECUTIVE DIRECTOR: Mr. Ticknor stated that the Society is healthy financially and holding its own on membership. Basic income is fixed and costs continue to rise sharply. A sizeable part of the work involves sale of daffodil publications and items. The net profits are a noticeable part of ADS income. Mr. & Mrs. Ticknor handle over 3,000 pieces of incoming mail in a year.

NEW BUSINESS: None.

OLD BUSINESS:

BOOK TITLE: Dr. Throckmorton moved to revert to the old title of *Daffodils to Show and Grow*. Motion carried.

RULES FOR AWARDING GOLD AND SILVER MEDALS: Mr. Anthony has not been able to find the original written guidelines for awarding of the Gold and Silver Medals. He has information for the Gold Medal award. The Silver is for outstanding and unusual contribution to the Society. He urged that rules be accepted and recorded. Mr. Pannill moved to re-adopt the rules. Mrs. Anthony seconded. Mrs. Hardison noted that the Silver Medal was limited to members of ADS. Motion carried. Mrs. Bloomer suggested that the information be put out where it can be available to the membership. In answer to a question, Mr. Anthony said that if more than one nominee is deemed to be worthy, the name of the one not chosen can be deferred to another year without need for resubmission.

ANNUAL MEMBERSHIP MEETING

Mr. Anthony called the meeting to order. The amendment to Article III, Section I, of the By-Laws as printed in the March *Journal* was approved.

Mrs. Millar, Convention Chairman and President of the Memphis Botanic Garden, announced that Mrs. Hardison had sent over 1,000 bulbs from her own garden to the Botanic Garden. She presented Mrs. Hardison with an honorary lifetime membership in the Botanic Garden Association.

Mr. Anthony presented the Silver Medal to Mrs. John Bozievich and the Gold Medal to Dr. Tom D. Throckmorton.

Mrs. Bourne, Nominating Committee Chairman, proposed the slate of officers which was unanimously approved. (See *June Journal* for list.)

Mr. Anthony turned the gavel over to Mrs. Bozievich. The meeting adjourned and was followed by an address by Mr. John Lea of England.

BOARD OF DIRECTORS MEETING, MARCH 29.

Forty-five directors were present.

Mrs. Bourne proposed the appointment of the Secretary, Treasurer, Executive Director, and Associate Executive Director.

EXECUTIVE COMMITTEE: Mrs. Bozievich stated that the By-Laws designated the Executive Committee be composed of the President, Secretary, Treasurer, and four other persons appointed by the President. She appointed the First and Second Vice Presidents plus Dr. Throckmorton and Mr. Roesé.

NOMINATING COMMITTEE: Mrs. Bozievich proposed the following individuals to serve on the Nominating Committee: Chairman, Mrs. Wynant Dean; Mr. Maurice T. Worden; Mrs. Helen Farley; Mrs. Jesse Cox; and Mrs. M. Abercrombie.

COMMITTEE CHAIRMEN: Mrs. Bozievich announced the appointments of committee chairmen. (See *June Journal* for list.)

NEW BUSINESS:

NEW CLASSIFIED LIST: Mr. Ticknor said that he will meet with John Lea and Dr. Throckmorton to consider a new list. Mr. Ticknor will recommend to the representative societies that they publish a joint list. If we cannot work out details with the RHS by this fall, we would publish the list alone. It was moved to copyright the book.

MILDRED SIMMS MEMORIAL: Mr. Knierim moved that the ADS present \$500 to the American Cancer Society in the name of Mildred Simms. Motion carried.

DAFFODILS FOR LANDSCAPING: Mrs. Bozievich suggested setting up a committee to bring to the Board suggestions for the evaluation of daffodils for landscaping purposes. Motion carried.

PROPOSED 1981 PUBLICATION OF REVISED HANDBOOK ON JUDGING: Mrs. Yerger presented the proposed changes from the committee. The following definition of the Maroon Ribbon was approved: "The Maroon Ribbon of the American Daffodil Society, Inc., will be offered for a collection of five standard reverse bicolor daffodils, any division or divisions. (Perianth colored, corona paler than perianth.)" Much discussion was held concerning the chapter on Judges and Judging regarding the requirement of five shows judged and five blue ribbons won. Mr. Phillips moved to return the matter to the committee for further consideration and to delay publication of new requirements. The old rules will again be in effect.

NATIONAL SHOW RULES: Concern was voiced that there were no explicit rules for the uniform running of National Shows, i.e., the use of student judges, selection of best in show, etc. Mrs. Lee's committee will consider the matter.

NEW DIRECTOR FOR SOUTHEAST REGION: Mrs. John B. Veach will fill Mrs. Ticknor's unexpired term.

AARON N. KANOUSE

Aaron N. Kanouse, owner and operator of the Floravista Gardens for over 50 years, died May 28 at the age of 78.

Daffodil lovers know Mr. Kanouse as the hybridizer of the split-coronas Square Dancer, Party Dress, Two-Step, and Lemon Ice, as well as the pink double Coral Strand, the yellow trumpet Inca Gold, pink-rimmed Coral Light, and others.

Mr. Kanouse also operated the Floravista Rock Shop, was an avid rock hound, and traveled throughout the West prospecting for gemstones. He was an officer in several rock clubs.

Our gardens have been enriched by his flowers, and we extend our sympathy to his family.

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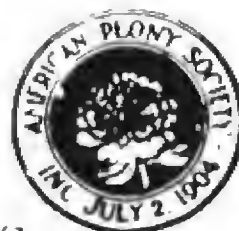
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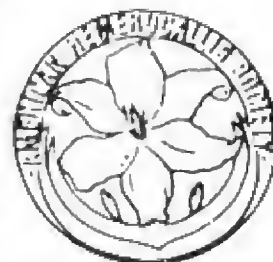
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NARCISSUS HERMANI

ADRIAN FRYLINK, *Babylon, New York*

In 1866 my Grandfather Adrianus Frylink founded what was to become the firm of A. Frylink & Zonen in Sassenheim, The Netherlands. It is still family owned and operated.

He was soon noted for his success in breeding new varieties of hyacinths and tulips, but it was not until the turn of the century that he introduced his first daffodil seedlings.

Upon Grandfather's retirement in 1902 his two sons, my Father Adrianus, Jr., and my Uncle Herman continued the business. My Father took charge of sales, while my Uncle assumed the management of the nurseries. They invested in the new red-cupped daffodils of British hybridizers and were among the first to import a stock of the new 'giant Trumpet' King Alfred from England. From my boyhood days in Holland I recall the names of Whitewell, Brilliancy, Albatross, Cossack, Will Scarlett, Firebrand, Argent, Croesus, Red Chief, Red Beacon, Macebearer, Bernardino, Horace, Homer, Great Warley, and Lady Moore that were grown in greater or smaller quantities and, among many others, used in hybridizing.

Mr. Vis had brought out his hybrids between *N. tazetta* and *N. poeticus*, but they lacked the early forcing quality of the Paperwhite grown from bulbs imported from France and Italy. With the objective in mind to produce an early-flowering, bunch-flowered daffodil that could withstand the rigors of the Dutch winter, crosses were made between Maria Magdalena De Graaff, a white and cream Leedsii that usually had two flowers to a stem, and Scilly White, a tazetta found naturalized in the southwest corner of England and on the Scilly Isles. This brought a series of fine seedlings, the best of which, L'Immaculee, became a prominent early forcing variety well into the thirties when the advent of cold storage treatment made it obsolete.

It was believed that a brilliant scarlet and a deep pink trumpet variety were somewhere in the distant future. Many serious hybridizers were trying for them because it was thought the beginning was there in the form of the little bicolor Apricot. Short of stem, small in size, with a poorly shaped perianth and a soft primrose trumpet that turned pale apricot towards the end of the flowering period, its only redeeming factor was an almost overpowering sweet violet-like fragrance. The so-called apricot color was only perceptible when the light was just right, an hour or so before sunset, and then only to those who were blessed with plenty of imagination. It was used in hundreds of combinations with all sorts of red cups, both as seed and pollen parent, without ever showing any encouraging results.

One of my Uncle's especially rewarding crosses was between Katherine Spurrell, a Leedsii originated by Mr. Leeds, and poeticus Glory from Mr. Jan Segers and later renamed Glory of Lisse. The hybrids were noted for their intense white, thick, and substantial perianths, elegantly shaped crinkled cups, strong, tall stems, and excellent bearing. Among others, Expectation, Frylink, White Whirl, and Annie van der Zelm were the most outstanding.

In the early spring of 1919 I began my apprenticeship with the firm in order to gain practical experience before entering the School of Horticulture later that year. Under my Uncle's direction an extended and revised hybridization program was set up that not only entailed daffodils, but also included hyacinths, tulips, gladioli, montbretias, and dahlias. In retrospect I imagine he added the latter three to carry me over the long period of waiting for

results from daffodil, tulip, and hyacinth crosses, because glads and montbretias bloom the second year from seed and spring sown dahlias bloom later that summer.

In an attempt to improve the size and substance of individual blooms of many poetaz varieties it was decided to use the Katherine Spurrell \times Glory of Lisse hybrids as seed parents and a selection of poetaz as pollen parents. Accordingly, in the spring of 1920 White Whirl, Expectation, Annie van der Zelm, Frylink, and two un-named seedlings received pollen from poetaz White's Hybrid, Majestic, Klondyke, Admiration, Aspasia, Laurens Koster, Scarlet Gem, Elvira, and L'Immaculee. Only one of these crosses produced a large seedpod. Unfortunately, at harvest time the name of the pollen parent on the label had become illegible and the cross was entered in the studbook as Expectation \times poetaz. Like all other seedlings they spent their first two years growing in flats in a coldframe, then a two year stint in beds in the open field, and finally in regular row beds in the nursery where they were dug up every summer.

A few flowers showed in 1925. By 1926 the whole group of 37 distinct hybrids flowered. They were truly outstanding. Strong, tall stems carried three or four individual blooms with an average diameter of three inches. The perianths were all smooth, thick, and very white and the expanded cups a medley of golden yellow, deep orange, and intense red. The following year they were all named and introduced to the trade at the weekly show of the Royal Bulbgrowers' Society in Haarlem, where Martha Washington received the coveted Award of Merit; and Father called the new strain Narcissus Hermani, in honor of his brother who had passed away in 1924.

The late twenties were an era of great prosperity in the Dutch bulb industry and many growers were eager to invest large sums of money in new varieties. My Father had no trouble in finding a buyer for a 50% interest in the seedlings at the unheard of price of the equivalent of ten thousand times the average hourly wage rate in Holland at that time. The terms were cash and it was agreed that my Father was to continue to grow the entire collection for another three years, at the end of which it was expected there would be sufficient increase so that each variety could be shared by weight on an equal basis. In 1929 speculation in new varieties had reached such heights that he again sold half interest in his remaining half to another grower for the equivalent of ten thousand man hours in cash and delivery of the bulbs three years from then.

After my graduation from the School of Horticulture, dark clouds appeared on the horizon in the form of the notorious Quarantine #37 which prohibited the free importation of daffodils into the United States, effective January 1, 1926. In the years following World War I, America had become an ever-increasing market for novelty daffodils; and after long deliberations we decided to move the production and part of our stocks to the south shore of Long Island in the village of Babylon, New York, which has been my home ever since. The heavy responsibilities of this new enterprise kept me from going to Holland and seeing many of my seedlings. It was not until 1935 that we imported under 'special permit' a few varieties of Hermani's and the following spring I first saw the results of a cross I had made sixteen years before. They received the highest awards at the daffodil shows of the Horticultural Society of New York, the Massachusetts Horticultural Society in Boston, and in the show sponsored by Rockefeller Center in New York that year. Encouraged by this and the enthusiastic reception by the public as well as the trade, I imported all 37 varieties in the fall of 1936.

For the next two years I subjected the Hermani's to extensive tests in the greenhouses, but much to my distress they did not respond to cold storage treatment for early forcing, nor to regular storage for forcing later in the winter. In addition, they proved of no value in hybridization, being sterile as seed—as well as pollen—parents.

Quarantine #37 was repealed in 1939, but the real shock of facing foreign competition was eased by World War II which prevented any imports from reaching our shores for another five years.

We lost many of our highly skilled younger men to the Armed Services and to factories producing war materiel here on Long Island. The large private estates, our principal customers, were closing down all over the country due to increased taxation and lack of experienced help. To continue growing acres upon acres of hundreds of varieties of new daffodils in the face of strong foreign competition as soon as the war ended had become infeasible. I decided to get out while a good opportunity presented itself in the form of two of the leading mailorder seedhouses which, with the aid of a series of excellent colored plates, sold all our novelties over a period of three years. It was the end of an era.

Most of the Hermani stocks in Holland disappeared during the war years and the buyers who invested in the original 50% and 25% of the stocks in 1928 and 1929 have long since gone out of business. Albany and Martha Washington are still being grown in small quantities and there may even be some Corona, which in my opinion is the outstanding show flower of all 37 Hermanis.

POSTSCRIPT

I want to thank the members of the American Daffodil Society who have corresponded with me over the years for their encouragement in getting me to put these reminiscences down on paper.

But enough of the past—the future is far more important.

I have followed the work of the Society since its inception and am pleased with its many accomplishments.

I would like to see more emphasis given to breeding good garden flowers that are sunproof and disease resistant, rather than to the ultra-refinement of a show specimen.

I would like more breeding for fragrance, much of which has been lost in hybridizing over the years. What has happened to the heady fragrance of the little jonquils, the perfume of the poets and the old bicolor trumpet Vanilla?

I would like to see a lot of people start working on late-flowering strains that would prolong the daffodil season a few more weeks. We need yellows and oranges and reds to go with *poeticus recurvus* and the few others that bloom at that time.

And, finally, picture the plight of the little lady who comes to a daffodil show to select "a few jonquils for her yard." She is immediately confronted by the Committee on Education, waving the Classification of Daffodils and shouting that a Daffodil and a Narcissus is the same thing, but a jonquil.....They scare the daylights out of a prospective member who, if she is my kind of a lady says "...with this" and goes home. I suggest that the Classification be used at Daffodil Shows not as an educational tool, but rather as a guideline for the more advanced fancier. The American Daffodil Society has a bright future with a membership of people who love the daffodil for what it is—the noblest, the brightest, and most diversified harbinger of spring.

CHRISTMAS GIFT

WILLIAM O. TICKNOR, *Tyner, North Carolina*

The "Christmas Gift" notice of last year was so successful that it will be offered again. One result was that the Executive Director himself received a Christmas Gift from John Hunter of New Zealand. It is a charming reprint of collected illustrations of bulbous flowers and the gardening advice of Henry Budden who was an artist, a printer, a nurseryman, and a lover of daffodils at the turn of the century. Perhaps more about this book later.

It won't be long until Christmas, and spouses and friends can be pleased with books on daffodils or with our ADS pin. Our pin is a beautiful piece of work—of Accent—by Marie Bozievich, our president, and can be bought as a tie tac, a pin back, or a ring back for \$7.50.

The *Daffodil and Tulip Yearbooks* are the time-honored annual accounts of British shows and growers and, to a degree, of daffodil interests around the world. Until 1972 it was a sizable bound book. In 1972 publication was begun of a smaller paperback book with the title, *Daffodils* and the year. Following are the yearbooks presently available as of the date of this *Journal* and their price until further notice.

RHS DAFFODIL AND TULIP YEARBOOKS

(none before 1946)			1959	1	8.00
1946	10	\$5.00	1960	2	8.00
1947	none		1961	5	6.50
1948	9	5.00	1962	4	6.50
1949	9	5.00	1963	4	6.50
1950	2	5.00	1964	1	6.50
1951/52	none		1965	1	6.50
1953	5	8.00	1966	none	
1954	none		1967	9	5.00
1955	none		1968	5	7.50
1956	none		1969	13	5.00
1957	none		1970	5	7.50
1958	5	5.00	1971	2	8.00
DAFFODILS					
1972	5	\$4.00	1976	7	4.00
1973	6	4.00	1977	8	4.25
1974	6	4.00	1978	12	4.25
1975	8	4.00	1979	12	4.25

Occasionally odd lots of these books are found and purchased for resale to our members. Each year they become scarcer. Optimists can place orders with the Executive Director for the more ancient and less available books to be delivered when they become available.

"In the beginning," when our Society was formed it issued a *1955 Yearbook* actually prepared by the famous Washington Daffodil Society. From 1956 until 1964 ADS published its own yearbooks. It then ceased publication of the yearbooks and began our present series of quarterly journals. A limited number of these paperback books are for sale and, when gone, they will not likely be available.

1955	13	\$4.00			
1956	6	4.00	1961	2	\$5.00
1957/58	7	4.00	1962	7	4.00
1959	2	5.00	1963	6	4.00
1960	many	2.00	1964	16	4.00

A considerable number of the 1960 *American Daffodil Yearbooks* turned up so they are offered at a bargain price. From it one can see how our Society, our daffodils, and even our viewpoints have changed in twenty years. In his inimitable fashion Harry Tuggle tells of the latest and greatest and his report bears no resemblance to a list of today's daffodils. Kitty Bloomer's tale of her trip to see J. Lionel Richardson and Guy Wilson and their daffodils is delightful to read. Articles by Willis Wheeler on hybridizing, articles by Matthew Zandbergen, by Mrs. W. H. Barton, Miss Estelle Sharp, and others are as useful and interesting today as they were twenty years ago. This book is available for \$2.00.

Our all time best seller and probably the greatest book on daffodils, the *Daffodil Handbook*, is still available. It is good for browsing or research. It is useful to a newcomer and to a botanist. It broadly covers the whole field of the daffodil family. Our Society is the only source for this book as we acquired the entire stock. The original prices of \$3.40 for the paperback and \$4.90 for the hardback still hold.

Daffodils in Ireland is a book for every daffodil lover. It has 140 pages of articles, stories, and illustrations of the magic of Ireland with daffodils. There are full accounts of the daffodils of such great people as Richardson, Wilson, and Dunlop, and of Rathowen, Carncairn, and Ballydorn. Only Brian Duncan could pack so much quality material into one book. It is \$5.00.

SPORTING WITH A SPORT

VENICE BRINK, *Nashville, Illinois*

In the horticultural world a sport is a new plant form which originates in any way except from the growth of a plant from seed, but changes the vegetative parts of the plant. An example would be an apple tree whose fruit is normally a greenish yellow, and then a new branch bears larger fruit of a bright red, or a plant with normally single flowers has an offshoot with double flowers.

The cause of these departures from the norm are as yet unproven, except in one case: the chemical colchicine applied to the growing point of plant growth may double the chromosome number, and the growth thereupon may be somewhat different from the parent plant.

The number of sports which occur is a matter of conjecture; some have inherent lethal faults. Most of those known have occurred in cultivated plants, and were spotted by the eye of some observant horticulturist who speculated they had some potential economic value. This has been true especially in the case of apples and daffodils.

In daffodils the most noticed was a double coming from a single form, and a number have been propagated. Some have made quite a stir, among them Hollandia, a sport of Whiteley Gem; and White Marvel, a sport of Tresamble. This was spotted by Matthew Zandbergen in a lot of flowers picked in a forcing greenhouse, the whole lot of which were then grown on another year to find the precious bulb from whence it came.

In 1927 P. D. Williams registered Crenver, 3W-GYO. It was later given an Award of Merit and a First Class Certificate. It is a healthy plant which will grow to 18 inches, increases well, and gives many blooms. The perianth is a well formed snow white, and the rather shallow cup of a good yellow has a red rim. It is a long lasting flower, blooming rather late, and has some resemblance to the poets. I know nothing about its parentage.

I got a bulb of it in 1952. It grew, flowered and increased; it was a beauty to behold. In the season of 1961, I noticed it, and went to get a closer look.

One of the bulbs which had been replanted the fall before had a couple of normal blooms, but also there were a few narrow five inch leaves from it, with two tiny, but rather obese buds. A couple days later they opened to a well-formed tiny, full double, pure white with a few red petaloids in the center.

That summer I dug the plant, and separated a tiny doublenose bulb, still loosely attached to a large bulb of the parent Crenver. I planted and marked it that fall. The next season there were three buds which did not open.

In 1963 there were several more buds all of which had a small section which opened normally; most of the bud was either atrophied or blasted. This has continued since. Some years the buds do not open, sometimes just a part breaks the sheath and expands. On examination I find the bud has developed normally in all parts, up to a certain point, then growth stops, except for a small part.

Since I had plenty of room I let it grow, and replanted it about every three years, there are now some eight plants. They seem healthy but increase slowly. I am sure it is not the weather which is their undoing as in the years since 1961 we have had almost every possible form of it, extremes of heat and cold, dry and wet, and years with no extremes, some years early, some late. In short, typical Southern Illinois weather, which has not affected other doubles in like manner. They have also been grown in widely varying types of soil.

In the past season of 1979, to my surprise, there were two buds out of nine which opened to a perfect miniature double. I have again replanted them.

POSTSCRIPT

When the plants came up this spring, foliage was larger, and lo, there were four flower stems, which opened to perfect blooms of six-rowed petalage, on nine inch stems, exact duplicates of those which opened when White Sails made one of its infrequent appearances. I did not have White Sails for some years after my sport appeared and it was never grown near; there is no possible chance of mixture. White Sails was registered in 1947 by the Dutch firm of van der Wereld, and it received a number of awards. I have no information on its origin.



A MOTHERLESS CHILD

TOM D. THROCKMORTON, *Des Moines, Iowa*

Sometimes I Feel Like A
Motherless Child; A Long,
Long Way From Home.

Old Negro Spiritual

I greatly enjoyed the article in the last *Journal* by Dave Karnstedt on various types of "open pollination" which exist, and among which the *Daffodil Data Bank* does not differentiate. He has discovered four classes of such parentages:

- A. The labels or records have been goofed-up.
- B. The "educated guess" by the breeder.
- C. Seed parent not known but suspected.
- D. Pollen parent represents an "educated guess" by a self-acknowledged authority.

He also worries about those cultivars with known pollen parents, but unknown seed parents, and asks that the computer explain this anomaly.

In the first place, the computer and I would like to add another class of open pollination to his list; i.e., both the seed parent and pollen parent were known at the time of fertilization and a meaningful cross made, but the information itself regarded as of little importance. Phil Phillips of New Zealand is the foremost living advocate of this school of thought. Once the cross is made, the seeds are harvested willy-nilly and the result is dependent entirely upon Phil's "eye for a flower." He follows in the footsteps of P. D. Williams, who used this "system" and thus simplified record keeping. He, too, had a keen eye!

In explaining the "motherless daffodil," the computer feels that Dave Karnstedt has stumbled onto a phenomenon where none exists. It's like this: according to the rules of the horticultural game, the name of the seed parent usually precedes the pollen parent when the cross is recorded. For example: Camelot (Kingscourt \times Ceylon). However, before knowledge of this rule became widespread, many of the older daffodil breeders had by habit recorded, for their own records, the name of the pollen parent first. This practice is followed, even today, by J. S. B. Lea. And occasionally these data have been so transferred into the records. Thus, it is possible to state that most motherless daffodils are merely a case of record inversion.

I have discussed this with John Lea, and we are both of the mind that reciprocal crosses make little or no difference in the daffodil world. Therefore, I am not about to waste the computer's time (at \$100.00 per hour) in converting a motherless child into a bastard child.

As regards open pollination, it has a great attraction to those who would rather gamble than labor. But I must remind you that the bees had been doing their thing among species daffodils for centuries; but it was not until Engleheart, Backhouse, Barr, and others came along that any real changes were made in the daffodil world. Even now, with man's help, the daffodil Camelot is only seven generations from the species. And the bees couldn't figure it out in several thousand years.

DAFFODIL DISEASES AND PESTS: VI — BULB FLIES AND MITES

THEODORE E. SNAZELLE, PH.D.
Department of Biological Sciences
Mississippi College, Clinton, MS 39058

This article marks a topical change from diseases of narcissus to narcissus pests. In this paper, the large narcissus fly, *Lampetia (Merodon) equestris*; the small narcissus fly, *Eumerus* species; the bulb scale mite, *Steneotarsonemus laticeps*; and the bulb mite, *Rhizoglyphus echinopus*, will be discussed with regard to their life histories, importance, and control. All four of these pests belong to the phylum Arthropoda. In the phylum Arthropoda, the bulb flies belong to the class Insecta whereas the mites belong to the class Arachnida. Perhaps you will recall the classic distinction between the arachnids and the insects: four pairs of walking legs in the arachnids and three pairs of walking legs in the insects.

BULB FLIES

The large narcissus fly, *Lampetia equestris*, and the small narcissus fly, *Eumerus tuberculatus* and *Eumerus strigatus*, have in common the following: 1) adults of both flies appear at about the same time of the year, e.g. late in the spring after flowering; and 2) the eggs are laid in practically identical fashions, e.g. on the foliage near the neck of the bulb or on the bulb itself (1,2). Conversely, there are various differences between the large narcissus fly and the small narcissus fly: 1) *Lampetia equestris* larvae infect the bulbs singly via the basal plate whereas *Eumerus* species larvae attack the bulb in numbers via the neck of the bulb, 2) *Lampetia equestris* lays eggs only once during the bulb growing season whereas *Eumerus* species may lay eggs several times during the growing season, and 3) *Lampetia equestris* is a primary pest and attacks previously healthy bulbs whereas *Eumerus* species are secondary pests and only attack diseased bulbs, e.g. bulbs infected by the basal rot fungus or by the bulb and stem nematode (1).

LARGE NARCISSUS FLY

The large narcissus fly, *Lampetia (Merodon) equestris*, is a member of the family Syrphidae which contains insects known as hover flies and drone flies (1). The original home of this fly was believed to be Southern Europe; subsequently, it was reported in England in 1865 (1). The date of entry of the large narcissus fly into the United States isn't really known; however, it undoubtedly accompanied bulbs which were imported from Europe after 1865.

The life history of the large narcissus fly involves four stages: egg, larva, pupa, and adult. The adult large narcissus fly (Figure 1) has many color variations (1,2,3). Colors seen in the furry body of the large narcissus fly often appear as bands of black, orange, yellow, gray, and buff. The adult large narcissus fly is about ½ inch (12 mm) in length and resembles a small bumble bee (1). The female large narcissus fly may lay from 40-75 eggs within her lifetime of about seventeen days (1,2,3). These eggs are laid singly at a locus, not in clusters, on foliage near the ground or on the bulb itself in the spring (Figure 2). After ten to fifteen days, the egg hatches, and the larva moves down and enters the bulb through a pin-prick size hole it creates in the basal plate (1,2). See Figure 3 showing a basal plate with a larva entry hole which

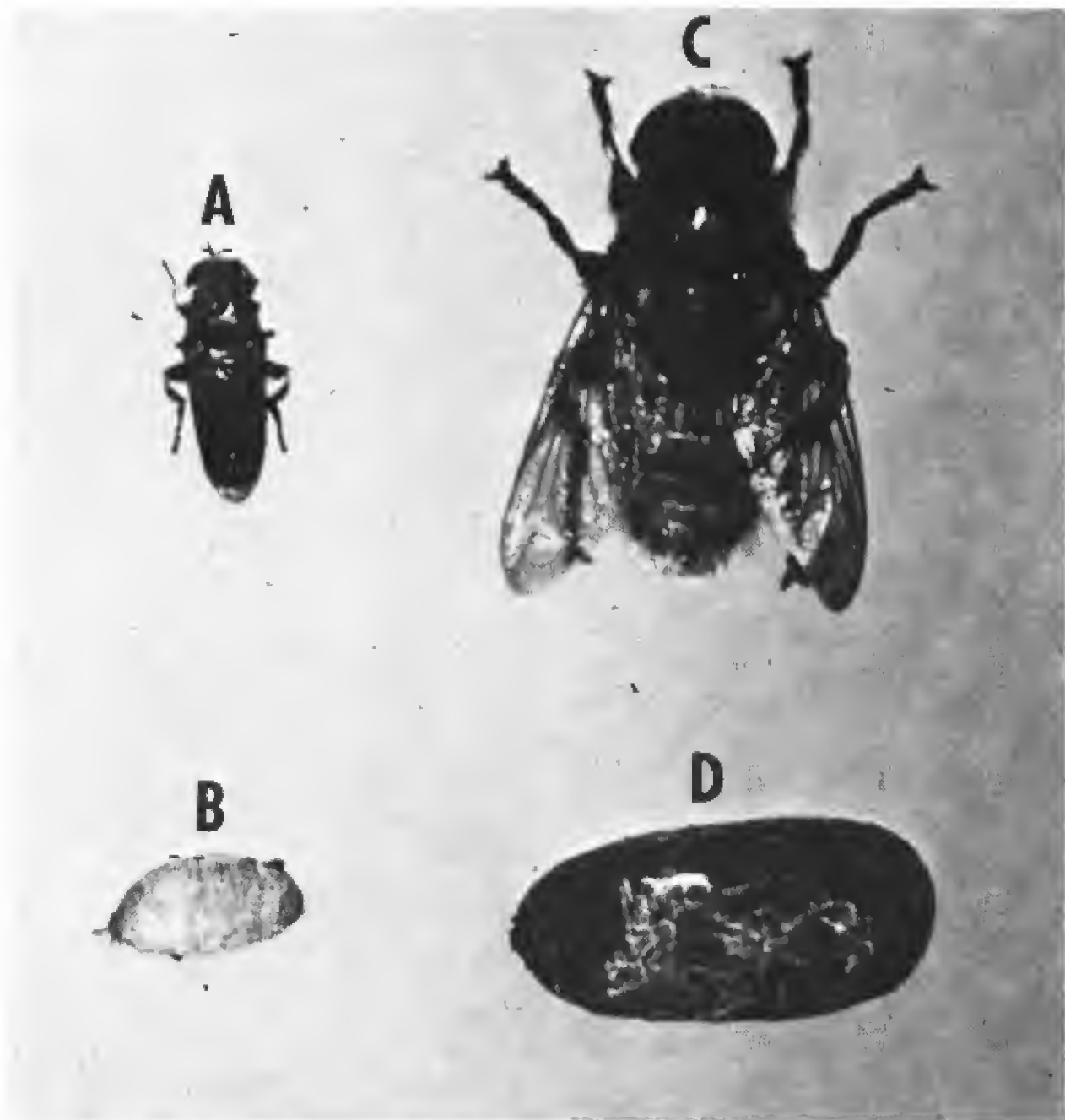


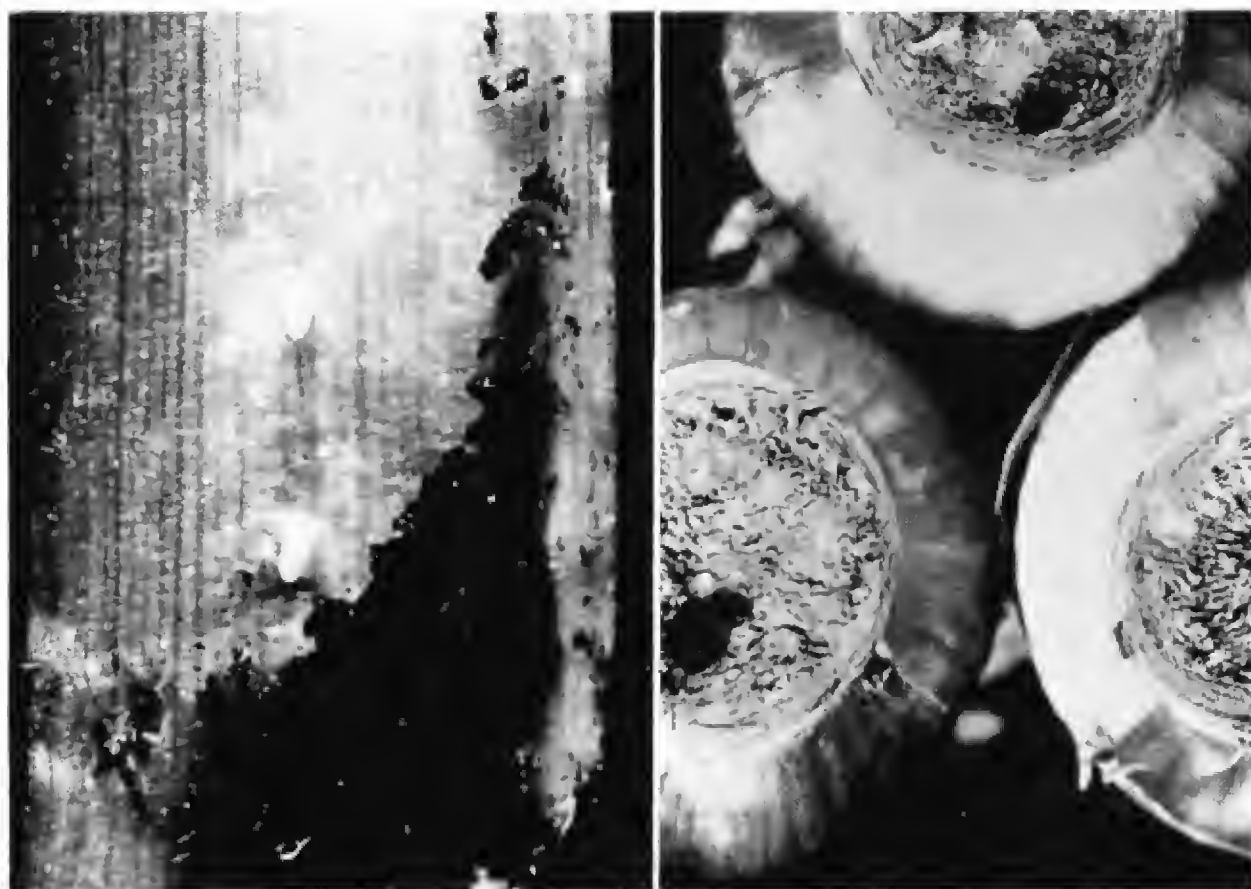
Figure 1. Adult Flies and Puparia.

A—*Eumerus* sp. adult, B—*Eumerus* sp. puparium, C—*Lampetia equestris* adult, D—*Lampetia equestris* puparium.

has been enlarged. Typically, only a single larva enters a bulb through the basal plate (1,2,3). Once the larva is within the bulb, it creates a large cavity by devouring the fleshy scales (Figure 4). A fully-developed larva or maggot is about $\frac{3}{4}$ inch (18 mm) in length. Winter passes with the larva still within the bulb (Figure 5). In early spring, the larva leaves the bulb via the neck or the hole previously created in the basal plate to move out into the soil to a position just below the surface. Here, the larva forms a puparium (pupal case) within which the larva transforms into a pupa. After five to six weeks, the adult fly emerges from the puparium to begin the cycle anew. The entire life history of the large narcissus fly encompasses a year (1,2,3).

SMALL NARCISSUS FLY

The small narcissus fly is either *Eumerus tuberculatus* or *Eumerus strigatus*. In England, *Eumerus tuberculatus* is the species most commonly found in narcissus (1). It is important to remember that the small narcissus fly is not considered a primary pest but instead is a secondary pest as it only attacks unhealthy bulbs, e.g. bulbs with basal rot or bulbs infected by



Left, Figure 2; eggs of *Lampetia equestris*. Right, Figure 3; basal plate holes caused by larvae of *Lampetia equestris*.

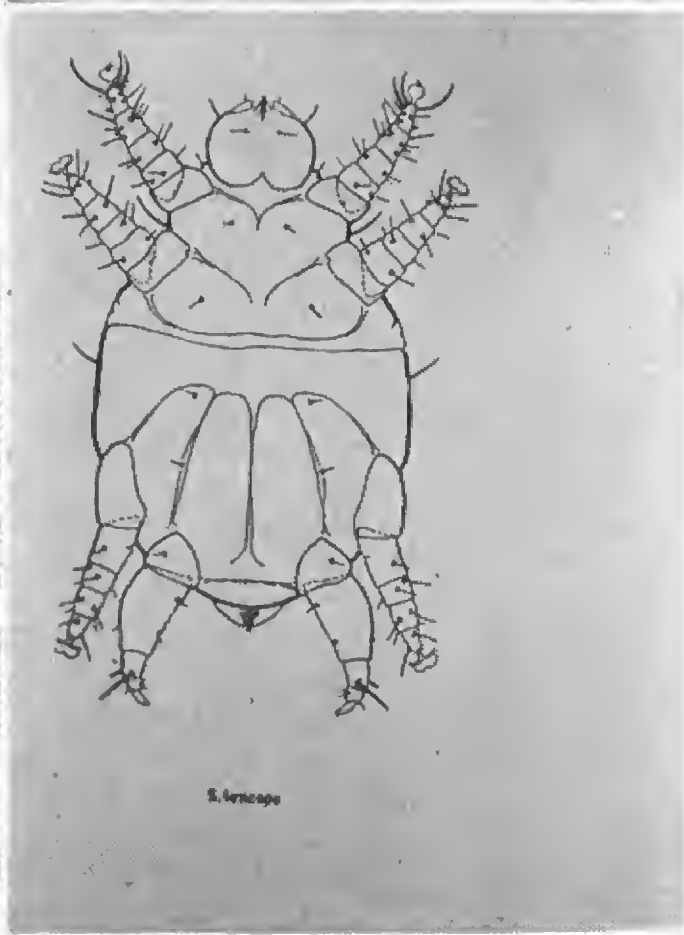
nematodes (1,2). The adult fly is about $\frac{1}{4}$ inch (6 mm) long (Figure 1). Typically, the small narcissus fly will lay its eggs in clusters of ten or more on the foliage near the ground or on the bulb itself. When the eggs hatch, the mass of larvae enter an unhealthy bulb through the neck of the bulb (Figure 6). The larvae feed on the bulb until they completely destroy it. Small narcissus fly larvae are about $\frac{1}{3}$ inch (8 mm) in length (Figure 7). These first brood larvae then pupate. The small narcissus fly puparium is $\frac{1}{4}$ inch (6 mm) in length. About the first of July in England, these puparia release adults which lay eggs which produce a new generation of larvae to infest bulbs in the soil. Some of these larvae may spend the entire summer feeding on bulbs and will remain on or near the bulbs throughout the autumn and winter until they will pupate and release adult flies to start the cycle anew in the spring (1,2).

MITES

There are two species of mites which infest narcissus: 1) *Rhizoglyphus echinopus*, the bulb mite, and 2) the bulb scale mite, *Steneotarsonemus laticeps*. Bulb mites seem only to infest damaged or diseased bulb tissue (1,4); hence they would be secondary pests of narcissus bulbs. However, in the case of the bulb scale mite, it infests previously healthy bulbs. The relationship between the bulb scale mite and smoulder has been mentioned previously (5).



Top, Figure 4; larvae of *Lampetia equestris*. Bottom, Figure 5; larva of *Lampetia equestris* (enlarged).



Top left, Figure 6; *Eumerus* sp. larvae. Top right, Figure 7; *Eumerus* sp. larvae. Bottom left, Figure 8; bulb mite, *Rhizoglyphus echinopus*. Bottom right, Figure 9; diagram of the bulb scale mite, *Steneotarsonemus laticaps*.

BULB MITE

The bulb mite, *Rhizoglyphus echinopus*, as previously mentioned, seems only to infest previously injured or diseased bulbs (Figure 8). Thus, it will not be discussed further.

BULB SCALE MITE

The bulb scale mite, *Steneotarsonemus laticeps*, is a major pest of narcissus, particularly forced bulbs. It was first described in bulbs in Ireland in 1923 (1). Now, the bulb scale mite seems to have distribution throughout all parts of the world where daffodils are grown. The adult bulb scale mite is much smaller than the bulb mite. The adult bulb scale mite (Figure 9) is extremely small, 1/125 inch (0.2 mm) long (1,4), and is not visible to the unaided eye as is the bulb mite. There are three stages of the life cycle of the bulb scale mite: 1) egg, 2) larva, and 3) adult. Details of the length of the various stages isn't really known; however, in warm conditions, the bulb scale mite can complete its life cycle in two weeks (4). Conversely, under cool conditions, the completion of the life cycle would require a longer period of time. As the bulb scale mite population increases within the bulb, mites move up out of the bulb onto the foliage and spread to foliage of other bulbs to infest those bulbs (1,4).

Bulb scale mites are usually found in the neck of the bulb where they feed in the angular spaces between scales (Figure 10). If bulb scales are pulled down from the neck, elongated brown scars on the scale tissue will be seen (Figure 11).

For most of the year, the bulb scale mites live in the air spaces between the scales which are caused by the shrinkage of the bulb scale tissue by the outward flow of nutrients and water. However, in the spring, the scale tissue is fully turgid (filled with water). Consequently, the air spaces between the scales are mostly obliterated as are the mites within them (1,4). Thus, to minimize the effects of bulb scale mites on forced flowers, well-shaped, round bulbs should be selected as the swelling is greatest in such bulbs (1). Thus, here is biological control, i.e. no chemicals, hot water treatment, etc., at its best.

As mentioned earlier, the bulb scale mite is not usually a problem in field grown flowers; however, it is often a problem with forced flowers because the warmer temperatures allow for a dramatic build-up of bulb scale mite populations. Damage to flower stems often shows up as a "saw edge" or as vertical scars (Figure 12). Sometimes the flower bud is killed by the mites. The leaves of mite-infested bulbs are often sickle-shaped (Figure 13) and scar tissue may be seen on the inner edge (1,4).

CONTROL

Because of the previously unhealthy nature of the bulbs attacked by the bulb mite, *Rhizoglyphus echinopus*, and by the small narcissus fly, *Eumerus tuberculatus* or *Eumerus strigatus*, control measures with these pests are of no real importance. However, with the bulb scale mite, *Steneotarsonemus laticeps*, and the large narcissus fly, *Lampetia equestris*, control may be accomplished by the use of hot water treatment (HWT) for three hours at 112°F (44.4°C) which is the same treatment used to control the bulb and stem nematode, *Ditylenchus dipsaci* (1,4,6). This temperature will kill all stages of both the bulb scale mite and the large narcissus fly. Since the removal of granular chlordane from the shelf to control the large narcissus fly, trichlorfon (Dylox R) is recommended as a soil drench to be applied to the



Top left, Figure 10; bulb scale mite damage in the angular spaces between the scales, x.s. Top right, Figure 11; scale damage by bulb scale mite, surface view. Bottom left, Figure 12; flower stem scar caused by the bulb scale mite. Bottom right, Figure 13; leaf damage and distortion caused by the bulb scale mite.

base of the foliage during the time of fly activity (3). Another trade name for trichlorfon is Proxol 80 SP, a product of TUCO, Division of The Upjohn Company, Kalamazoo, Michigan. This manufacturer recommends the use of 2 ounces Proxol 80 SP/10 gallons of water as a drench per 100 feet of row. The Proxol 80 SP is applied in a direct stream to the base of the plants at the beginning of adult fly activity (early May to June). The treatment should be repeated yearly. You are cautioned that trichlorfon, like most other biocides, is toxic to many animals including man.

SUMMARY

In this article, the life histories of the large and small narcissus flies were discussed. Significantly, only the large narcissus fly is a primary pest of narcissus bulbs whereas the small narcissus fly is a secondary pest, i.e. it attacks only unhealthy bulbs. Likewise, the bulb mite is a secondary pest whereas the bulb scale mite is a primary pest of narcissus bulbs. Although several control measures exist for the control of the large narcissus fly and the bulb scale mite, HWT is recommended because it is safest to the grower and because it controls the bulb and stem nematode. As the HWT method of control of the large narcissus fly is one of a curative nature, the use of trichlorfon as a soil drench is used as a prophylactic or preventive measure.

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CORRECTION

Due to a printing error, several photos included with "Daffodil Diseases and Pests: V—Nematodes and Nematode Diseases" published in the June 1980 issue of the *Daffodil Journal* were reversed. The photos for Figures 7 and 8 are reversed, as are the photos for Figures 11 and 12. We sincerely regret the error.

—M.L.G.

DAFFODILS IN ENGLAND AND NORTHERN IRELAND—APRIL, 1980

AMY AND CHUCK ANTHONY, *Bloomfield, Connecticut*
(from the *New England Regional Newsletter*, June, 1980)

We missed seeing our own flowers this year, but we have no regrets. England and Northern Ireland had a rainy, cool spring and the daffodils were at their best while we were there.

The RHS daffodil show was superb and all the growers claimed it was the best show in ten years! John Lea won the Engleheart Cup again with a stunning collection of twelve of his own flowers and his Loch Hope 2Y-R won Best in Show. Tony Noton's Rutland Water 2W-W went Reserve. The trade stands are always eye catching. John Lea and Brian Duncan (Rathowen) both won Gold Medals for their exhibits. Kate Reade, Mrs. Abel Smith, and Broadleigh Gardens were awarded Silver Medals.

Of Mr. Lea's flowers, those that caught my eye were Achduart 3Y-R, Creag Dubh 2 O-R, Croila 2 WG-GW, Cul Beag 3W-R, Gold Convention 1 Y-Y with a very formal straight trumpet (although this is priced at \$141, he sold ten at this show!), Loch Lundie 2Y-R awarded an A.M. as a Show Flower, Shildaig 2 Y-YYO, and Verwood 3Y-Y. Later in the week we had lunch at Dunley Hall, a charming house part of which was built in 1530, with its lovely informal garden with a sweeping green lawn surrounded by flowering shrubs and daffodils and magnificent old trees, and had the chance to see his commercial plantings of about three-quarters of an acre.

It is interesting to note that orange-red flowers are suddenly appearing from all growers just as the pink doubles did several years ago. John Lea has Creag Dubh; Brian Duncan showed a seedling of the Havens on his stand, and Kate Reade has the brightest of them all so far, a medium-sized long-cup, a nice round flower.

Broadleigh Gardens, along with the Daffodil Mart, is still the best place to buy miniatures and Lord Skelmersdale is trying to build up his stocks and to send out correctly labeled bulbs. We just received his catalogue. Unfortunately, he is having trouble with some of his cultivars. For his sake, I hope the situation clears up quickly. Incidentally, while we were in Holland we discovered the Dutch are beginning to become interested in growing more miniatures.

We were pressed for time, having been allowed to accompany a team of judges, the privilege of attending the meeting of the Narcissus and Tulip Committee, and being entertained at a hearty luncheon for judges and committee members; so I did not devote as much time to the Rathowen and Carncairn flowers as I might knowing we would see their flowers in Northern Ireland. Rathowen's stand was a mass of color on either end and with a center of white flowers. Your eye was drawn, however, to the pink cyclamineus hybrids—Lilac Charm, Lavender Lass, Nymphette, and Snoopie; also, to the doubles—Pink Pageant and Pink Paradise. On Kate Reade's smaller stand Heat Haze 2Y-R was a star attraction.

Another day we spent a fascinating hour in Frank Waley's garden in Sevenoaks. Tall trees shade the hillside garden and rhododendrons and azaleas are a foil for the many species Mr. Waley, now 86, has collected on his several trips to Spain and Portugal. There were still a few cyclamineus in bloom of the hundreds that carpeted the ground in several places.

N. bulbocodium citrinus was just coming into flower—I was amazed at the size compared with those I've seen in this country. He also had a small clump of the rare Queen of Spain, a wild form of \times *johnstonii*. He sent us off with several varieties, among them *triandrus loiseleurii*, Cyclataz, a *rupicola* \times *triandrus* cross, and *Minicycla* \times *asturiensis*, which are safely planted at the Harrison's for ripening and shipping in the fall.

The hospitality shown us by our hosts in Northern Ireland made our two week stay unforgettable. We were asked to judge at the three shows held while we were there. The shows are true flower shows with classes for other horticultural plant material and classes for floral art along with the classes for daffodils which are divided into three sections: open, intermediate, and novice. It was nice to see the numbers of young people who were participating.

Our first stop was at Carncairn Lodge with Robin and Kate Reade. The driveway leading to the lovely old stone house was lined with old cultivars and rhododendrons. The big field of over an acre is to the back and side of the house. With the cold wind blowing off the Irish Sea, the best place to groom the flowers was in the kitchen with its oil-fired stove. Kate was fearful that she'd have nothing for the Ballymena Show but the sugar and warm water treatment plus a temperature of 65° brought the flowers along nicely, and she tied Brian Duncan for most points. She won Best in Show with a lovely Cool Crystal from her American-bred collection. Other flowers we admired at Carncairn were Ashmore 2W-W, Craigdun 2W-OOY, Drumnabreeze 2Y-WWY, Irish Linen 3W-W, Lemon Sherbet 2W-GYY, and Pixie's Pool 3W-GGY. In Omagh she won a number of prizes in the Open Classes including American-bred with Precedent, Sunapee, Cool Crystal, April Clouds, and Daydream.

We stayed next with the Harrisons at Ballydorn Farm in Killinchy overlooking beautiful Strangford Loch. There were daffodils on the sunporch to admire. One I especially liked was a seedling 74/3BGWO/XXX which had a straight cup and coloring that reminded me of Daviot. The Harrisons have always had lovely Division 3 flowers, but they don't limit themselves to this division. Others I liked were Port Erin 3W-GGW, Golden Amber 2Y-O, Ireland's Eye 9W-GYR, and Topkapi 2W-OOY. Blooming this year for the first time was a cyclamineus hybrid with a white perianth and a poeticus-colored cup, quite different from anything I've ever seen before. One evening we had a most pleasant time at the nearby home of one of the Harrisons twin daughters. At the family dinner were Louise Gordon and her husband, their two sons, and her sister, Nicola; also Richard Gordon's mother and uncle. It was so very nice to be entertained this way.

Our last weekend was spent outside of Omagh with Clarke and Rosanna Campbell in their charming old farmhouse. This is a real working farm and the major stocks of Rathowen Daffodils, as well as Tom Bloomer's seedlings, are grown here. Brian Duncan's own seedlings and the small stocks of other growers are grown in his backyard which is nearer to the town of Omagh. Rathowen, with the largest acreage of all the growers, has many beautiful flowers and won their share of prizes at the three shows. Tom Bloomer's seedlings were outstanding at Ballymena and Brian's were equally good at the Championship of Ireland Show at Bangor where his D335 [to be named Riverdell] 3W-Y won Best in Show. Among flowers I liked here are just a few: Campion 9W-GYR and Pismo Beach 2W-GYP, two of his newest introductions; Brindisi 2Y-P with a smooth perianth; Galahad 1Y-Y; and Roseate Tern 2W-P, an unlisted deNavarro flower. We spent a fascinating

evening at the Duncans listening to Willie Toal, a daffodil judge from Belfast, talk about his friendship with Guy Wilson and the Richardsons.

The daffodils were lovely but the nicest part of all was seeing old friends and the making of new ones.

HERE AND THERE

Newsletters have been received from the Middle Atlantic, New England, and Midwest Regions; and we have also received *Cods Corner* from the Central Ohio Daffodil Society, *Tête-a-Tête* from the Minnesota Daffodil Society, and the Australian Daffodil Society newsletter. Show reports and plans for fall meetings abound. The New England newsletter included a delightful account of daffodils in England and Northern Ireland as viewed by Amy and Chuck Anthony.

The maiden issue of *Hearthstone*, published in Ironton, Ohio, contained an excellent article, "Hints on Exhibiting Daffodils," by Mrs. Charles R. Davis of Kenova, West Virginia. The article served as preparation for the Huntington Council of Garden Clubs Daffodil Show. The magazine also included a drawing of Achduart by Marie Bozievich.

A letter from Bill Simms reads in part: "I have just been notified by the Cuyahoga County Unit, American Cancer Society, Cleveland, Ohio, of a memorial gift by the ADS in remembrance of Mildred. . . .I shall greatly appreciate it if you will find a way to let the Board and the Society know . . . how deeply I appreciate this most generous gesture on Mildred's behalf."

Bill Bender writes: "On 24 April 80, Phil Phillips and I started the day walking the rows of seedlings down at the farm and then after it warmed up about mid-morning we got to hand pollinating flowers. In about four or five hours Phil made 54 crosses of which 85% produced seed for a total of 10,118 seeds—would that qualify for the *Guinness Book of Records*? . . . It was a good day! but now I have almost 17,000 seeds to plant."

From Greece comes word that The Goulandris Natural History Museum is publishing *Wild Flowers of Mount Olympus* with text covering 900 species with 465 color illustrations. Those wishing further information may write N. Goulandris, 13 Levidou Str., Kifissia, Greece.

Word has recently reached us of the death of Cyril Coleman, hybridizer of the well-known trio of cyclamineus hybrids, Jenny, Dove Wings, and Charity May. Mr. Coleman contributed many articles to the RHS yearbooks and was also the author of *The Hardy Bulbs*, Vol. II.

From David W. Adams in New Zealand comes the reminder that Highfield Beauty is an Australian-bred cultivar. Those planning entries in an Australian-bred class will find this cultivar very useful, but don't make the mistake of using it in a New Zealand-bred collection.

Ruth Pardue, writing about the Whetstone Educational Display Garden in *Cods Corner*, says that, "Each year it becomes more difficult to decide which cultivars will be selected as 'Garden Flowers of Merit.' " The cultivars selected as the best for 1980 (previous winners excluded) were: Bobbysoxer 7Y-YYO, Downpatrick 1W-Y, Green Quest 3W-GWW, Peeping Tom 6Y-Y, Dickcissel 7Y-W, and Chapeau 2W-Y.

BEGINNER'S CORNER

Here we are—right in the middle of bulb planting season. Hopefully you've taken our previous advice and visited spring shows and ordered bulbs from some of our advertisers. If you have, then you're probably eagerly awaiting the postman each day, hoping that your package will arrive. There's always great anticipation and excitement as packages are opened to see what "bonus goodies" the grower has included. (Not all growers follow this practice.) Open each bag of bulbs and check the condition of the bulbs. If you find a soft bulb, let the grower know so he can make a replacement either this year or next. The growers want satisfied customers, and a polite letter explaining the situation will bring quick results. Plant as soon as possible, but if you're not going to plant immediately, spread the bags out. Don't let them tightly stacked in the mailing carton.

If you bought bulbs with the intention of exhibiting in shows and challenging Handy Hatfield's record four Gold Ribbons in one season, then by all means prepare special beds for your bulbs. Prepare the site to a depth of ten inches, adding a fertilizer low in nitrogen, such as 3-10-10. Super phosphate has given good results at the Columbus display garden. Then add a soil mixture to make raised beds six to eight inches high. This ensures good drainage and adds additional depth. Railroad ties, rocks, etc., can be used around the edge of the bed. Plant at least six inches deep, in rows. Apply sulfate of potash (two ounces per square yard) immediately after planting. If by chance you have any chlordane (now off the market) dust the bulbs in the row to protect against bulb fly. Cover and mulch now or in the spring to keep flowers clean. Protect the growing area with landscaping, fencing, etc.

If your main interest is in growing daffodils in the border with the hope of entering the local show and perhaps winning a few ribbons, then prepare the chosen well-drained spot (not in full shade) to at least one spade's depth (assuming the border or perennial garden was well prepared to begin with). Work some fertilizer into the bottom soil, stir it up, add some sand, and plant your bulbs. Use no manures or other organic fertilizers. You'll probably win your share of ribbons, as we have over the years, because you grow good daffodils. Remember, the better you treat your bulbs, the better your flowers will be. The best exhibitors are the best because they grow the best cultivars and give them the very best conditions possible. If you're having a dry autumn, water the bulbs to get root action started. Water during the bulbs' active growth is probably the most important item, so don't be afraid to water in the fall and again in the spring. If you don't get an inch of rain a week, get out the hose! But do make sure the daffodils are in a well-drained location.

From Harold Cross, Geilston Bay, Tasmania, comes the following:

May I offer one thought for "Beginner's Corner?" I wish that when I began breeding some twenty years ago that someone had reminded me most forcibly that one does not breed Melbourne Cup winners out of cart horses. I began with the premise that as I couldn't afford the very best then I could compensate by raising very large numbers from second rank material. What a waste of time and effort that was! And it was so unnecessary because those who had the very best were quite anxious to help a beginner—if only I'd known.

TWO BLOOMS TO A POET—TWO SIDES TO A QUESTION!

MEG YERGER, *Director Poeticus Round Robin*

Comment on "twin-flowered" poeticus was invited in a March *Journal* article. Several members have written on the subject, having observed 1980 blooms.

Mary Mitchell of Richmond, Virginia, wrote: "The two-headed poet fascinates me. I have one that looks like *N.p. radiiflorus* but blooms slightly later. It came to me in a clump from a friend. Not any of the other bulbs have ever had another flower; they remain single. Every now and then the *radiiflorus* in my field produce an extra flower."

Helen Trueblood of Scottsburg, Indiana, thinks weather must cause the two-headed poets. She has had them but did not see a one this year among the poets. Her observation has been that all of Mother Nature's children can have differences and that sometimes good results come when the difference becomes permanent. She pointed out that we should bless the fellow who was observant enough to notice a pink grapefruit and save it!

Lou Whittington of Marion Station, Maryland, had a two-bloom stem of Lyric with each flower equally good but she opted to enter a more conventional poet specimen in a show instead because as a student judge she wanted to play it safe in competing for a blue ribbon.

Meg Yerger again had examples of twin-floweredness in Quetzal, Shanach, *recurvus*, and for the first time noticed such an occurrence on Perdita, Poet's Way, Sea Green, Stilton, and Evans N-25 (*recurvus* × Dallas).

Kate Reade of Ballymena, Northern Ireland, noted that all center bulbs of Frank's Fancy had two blooms per scape while all offsets had but one bloom per scape. Frank's Fancy is the two-headed cultivar bred by Sir Frank Harrison that created a sensation at the Omagh Show when exhibited by Mrs. Reade. It is pictured on page 108 of the December 1979 *ADS Journal*.

One poeticus collector was adamant about Sir Frank's poet saying if we won't buy the cultivars, they won't sell them, then they won't put them on the market. In her words she said, "I will not buy a two-headed poet . . . never."

Virginia was added to the list of states in which the poet species *recurvus* has been reported to have twin blooms when Lucy Christian wrote in the Poet Round Robin letter about it. She also had Raeburn with two blooms this year.

Pidget had two flowers to the scape for Helen Link who commented in the Round Robin that it was an open pollinated Como cross and might have other than poet genes.

Mrs. Link wrote that she thinks two-headed blooms on poets ought to be overlooked. She asked Mrs. Richardson of Ireland about the occurrence of twin blooms on daffodils in general and was told that at Prospect House they destroyed the plants, especially in Division 3, as she thought they were abnormal. Based on this Mrs. Link said she did not think she could give a blue ribbon to a two-headed one in Division 9, although she noticed in Carncairn's catalogue Frank's Fancy won an award in the seedling class in Omagh in 1979 and also in the poeticus class at Ballymena in 1979.

Venice Brink commented that if Frank's Fancy, or some other seedling, regularly comes with two flowers to a stem he thought it should be accepted. He agreed with Mary Lou Gripshover that two-headedness is not typical but it should not necessarily bar an otherwise worthy flower.

Tazetta specialist Bill Welch wrote that the sometimes two-headed characteristic of *recurvus* should certainly be useful in his crosses with

tazettas and that the Dutch sometimes selected two-headed types to use in poetaz crosses.

The response on this subject, requested in the *March Journal*, has been exciting. It proves, at least, that there are two sides to every question just as there may be two blooms to a poet. If members will continue to report their own observations certain common ancestors in the heritage of poets appearing with two blooms may be found. Already we note Dactyl in the lines of Cantabile, Quetzal, Shanach, Thomas Hardy, and Poet's Way.

"HAPPINESS IS" GOOD POET CULTURE

The words "happiness was born a twin" ended the article on twin-flowered poeticus in the *March 1980 Journal*. Now we learn from Dr. Tom Throckmorton that this twinning tendency may be the happy result of good culture.(1)

At one time, Dr. T. asked Guy Wilson why Frigid so often came with two blooms to a scape. Guy's reply was to the effect that it was due to Frigid's poeticus ancestry and that when plants with poet blood are grown in an environment completely to their liking they will often have twin heads.(3) An article in the *1956 Daffodil and Tulip Yearbook* emphasizes the matter of twin-headedness as evidence of good culture. In describing his two-year-down beds of Frigid, Wilson said, "There are quite a few stems amongst them carrying twin heads which seems to indicate that it is growing in robust health and vigor."(2)

Dr. T. now has similar evidence from flowers of his own raising. Most of his cultivars have poet ancestry. Two years ago he gave many of them to his daughter in California. This year she phoned to say, "Dad, why do so many of the flowers you gave me have two blooms?" The "Frigid Story" gave her the answer. What a proud person she must be to have been able to give her parent's daffodil progeny such good growing conditions that they are happier than they were back home in Iowa!

(1) Dr. Throckmorton has given the writer permission to quote the conversation with him on the subject.

(2) *1956 Daffodil and Tulip Yearbook*, page 20, lines 6 and 7

(3) Frigid 3 W-W is from Emerald Eye 3 W-GWW × Dactyl 9 W-GYR; Emerald Eye came from Moonbeam × poet with Moonbeam having come from Mrs. Barton × recurvus

—MEG YERGER, *Princess Anne, Maryland*

TWO DAFFODIL SEASONS EACH YEAR

P. PHILLIPS, *Otorohanga, New Zealand*

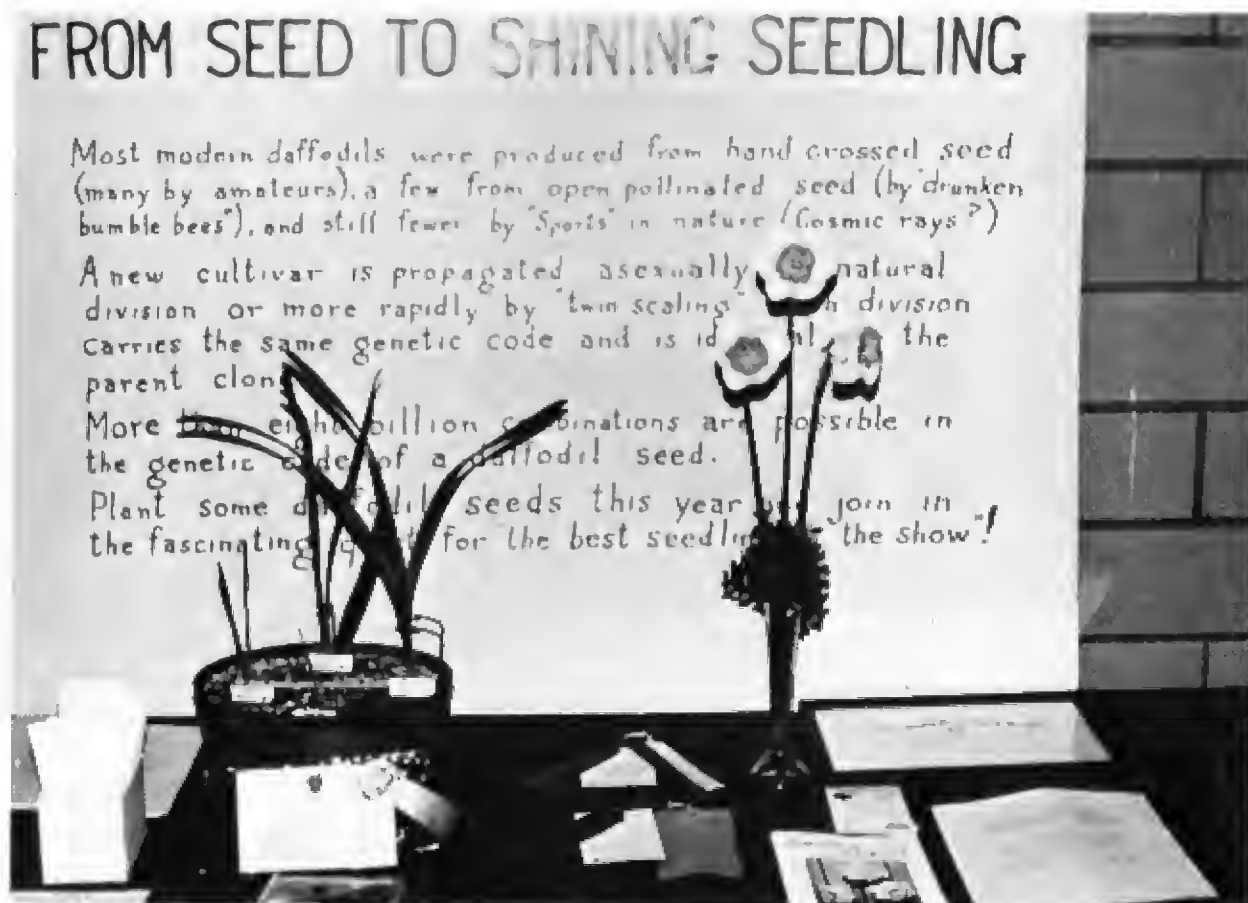
During his stay in the U.S.A. in April and May, 1980, the writer took part in every conceivable aspect of "Daffodilling," from lifting and planting bulbs, to hybridizing, and even making fly nets and catching narcissus flies. The first fly was caught on Mother's Day, but the most interesting and satisfying part of the tour was being able to help people pick, select, pack, and stage their blooms and thus become involved in showing. Eleven shows were attended in eight states, including the writer's fifth ADS convention since 1968 at Portland. During this time several significant changes in the daffodil world have been noticed. The most significant is the fact that more men are actively growing and exhibiting daffodils. Some are investing big money in the best

obtainable cultivars. This is good, as it raises the standard of flowers shown and also provides better competition. More couples are participating in showing. There is nothing quite so rewarding as working together on a project, even if one partner does only the clerical work or the "fetch and carry." What a thrill it can be to see one's handwriting on the tag attached to the Best In Show, even if the writer did not know the name of the cultivar it pertains to.

Many of those who were considered the best exhibitors twelve years ago are still in the forefront at several shows. This is a great record and one to be proud of. Daffodil growing and showing is hard work all the year round; and once a grower reaches the age of 65 plus, and is not able to do so much "hard labor," the standard of flowers shown gradually deteriorates. The fact that so many have kept going, so long after their prime, is a tribute to their dedication and devotion.

A great deal more interest is being taken in hybridizing. The success achieved by a few has stimulated many to emulate them, and a large percentage of those exhibiting are now hybridists, although not necessarily exhibiting their own seedlings. Some hybridizers have produced cultivars that are winning many awards and must be considered the equal of those raised by established hybridizers in other countries. This trend is likely to continue and proliferate, in future, to the great benefit of hybridizers in general and the ADS in particular.

Educational exhibits have improved considerably. At Chambersburg Dr. Bender had an exhibit entitled "From Seed to Shining Seedling," showing the seed, the one to four year old seedlings in growth, and the three flowers of his own raising that won an award in Boston, together with the *Journal* illustrating them on the cover. A sheet with full details for hybridizing and planting was provided, together with a free sample of 100 seeds. Eighty lots of



Educational exhibit in Chambersburg. (Bender photo)

seed were distributed. A good educational exhibit showing the points to be considered in judging was displayed at Columbus. It is exhibits such as these that awaken and maintain public interest.

There is still very little progress being made with the miniatures. This is because there are so few people hybridizing them and because there is a limited field in which to work. Sooner or later someone will make a breakthrough that will lead to big advances being made with these fascinating subjects. Why not try your hand at it? You could be the one to get the lucky break.

Judging has changed, not in method but in complexity, mainly due to the new color coding. Nothing has caused more confusion and concern than this new system. There are far too many errors in the *Data Bank* and it is a tremendous task to correct them all. Even if all are corrected, the variation in flowers from season to season and from garden to garden, makes color coding unworkable and, I believe, unnecessary on the show bench. The judging schools are doing a good job, but are no better than the instructors' capability. The fact that a person has qualified at a judging school does not make him or her a proficient judge, any more than a degree in Education makes a person a good teacher. Only dedication and experience, particularly with one's own flowers and at shows, can do this. Some judges are not acting on the instructions given in the two excellent articles that appeared in the *March Journal*. At some shows not enough flowers are taken to the table as contenders for Best In Show. There is no disgrace in taking up a flower that is not given the award; every worthy flower should be given a chance and it is up to the judges to sort them out at the head table. At one show several really good flowers were taken up for contenders as B.I.S. and a secret ballot was held. On the first ballot only two flowers gained two votes, the rest less than two. This shows the wide range of preference held by judges, and also the high standard of the flowers presented on that occasion. A secret ballot is always preferable to a show of hands. At the Wilmington show, special classes were provided in which judges could exhibit. This is a very sound idea as it enables judges to show flowers that may not otherwise be seen on the benches, stimulates their interest as well as that of other exhibitors, and helps to keep them up to date with new introductions. Judges should be encouraged to show, rather than prevented from doing so, and this is a means of achieving this. Some judges have not shown for ten years and have added very few new cultivars to their collection in that time. Can they be considered equal in efficiency to one who shows regularly and acquires new cultivars each season?

One of the loveliest of many beautiful gardens visited was that of John and Lib Capen at Boonton, New Jersey. Their extensive collection contains many of the most recent and best introductions as well as the largest and most comprehensive collection of miniatures seen so far. The whole garden is beautifully landscaped, and contains some very interesting trees and shrubs, as well as a splendid wild flower collection. It is a pity that their season is so late, otherwise they could have considerable success at the shows.

One thing that has not changed is the cordiality and hospitality of daffodil people. This will never change, it merely grows more extensive and spontaneous each year. The writer would like to thank all those who helped to make his visit so enjoyable and interesting. Next year he hopes to come again and bring two younger, but equally knowledgable and enthusiastic, men with him.

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Mrs. William Pardue

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Mrs. Paul Gripshover

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is a reproduction of a Christmas card received several years ago by the editor. The designer is Marian Heath, Sudbury, Massachusetts.

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AMERICAN DAFFODIL SOCIETY SYMPOSIUM FOR 1980

JANE MOORE, *Poquoson, Virginia*

Several members have asked if the symposium is only for show flowers. Theoretically it is not, but actually it is biased since a large percentage of the reporters grow to show. Readers should remember that this is a report of a very small portion of the membership and is not indicative of the garden flowers grown by the membership as a whole. For the 1979 report I asked for eighteen cultivars which performed best for each reporter. I realize now that interpretation of my request may not have been what I intended since, by performance, I meant in the garden rather than on the show bench. However, I think the results are what I intended and we have twenty cultivars which will grow well in the average garden and many of them will produce show flowers. This year I asked reporters for their comments on the 1979 recommendations. The majority of adverse remarks were faulting the flowers as show blooms. There are other comments that substantiate the fact that certain cultivars do not do as well in some localities as in others. There was a comment about the cost of one bulb on the list but in general only one cultivar had enough adverse comments for me to mention it. The disagreement was with Jetfire and the comments were that the cup is usually "splotchy" or streaked. Even though I couldn't pinpoint it, it could be a regional thing or a weather fault as again this year there were a number of recommendations for Jetfire.

For the 1980 symposium I requested cultivars which consistently perform well and brought the most pleasure this year. I hope that next year I can remember to add "in the garden." I do believe, from most of the answers, that the reporters knew what I wanted. I dislike not telling you all of the excellent comments, but if the report is too repetitious it will not serve its purpose; so I shall just list the cultivars that were named anywhere in the report last year and print the comments on some different cultivars. There were a number of positive comments for Festivity, Daydream, Chapeau, Ivy League, Jetfire, Oregon Gold, Bethany, Canisp, Misty Glen, Angel Eyes, Bell Song, Purbeck, Eland, Rameses, Arctic Gold, and Suede all of which were in one of the two lists last year. Additions, with comments, are

Rainbow (Richardson) 2W-WWP 1961 — not as colorful as some of the newer pinks but excellent flower; show flower; excellent color and form; iridescent; uniformity usually prevails on blooms in garden.

Falstaff (Richardson) 2Y-R 1965 — wonderful color; superb constitution.

Gay Song (Richardson) 4W-W 1968 — not everyone's favorite; great for bouquets; huge flowers on tall strong stems and it does win ribbons, too.

Shining Light (Board) 2Y-ORR 1965 — beautiful clean color in both perianth and cup; beautiful contrast, perfect form, healthy and long-lasting; good increaser, strong foliage; always consistent; fairly sunproof; for show and garden.

Accent (Mitsch) 2W-P 1960 — good color and lasts a long time; excellent garden flower.

Leonaine (Mitsch) 2W-P 1959 — makes a marvelous clump in garden, giving good, pink color; small flower, lovely shape; good substance; very strong cultivar capable of winning ribbons.

Strines (Board) 2Y-Y 1965 — so very dependable in all respects.

Pipit (Mitsch) 7Y-W 1963 — vigorous, consistent, good color contrast; many scapes with three florets; excellent increaser; for show as well as garden.

Chiloquin (Mitsch) 1Y-W 1968 — beautiful reverse; consistent bloomer, sends up secondary blooms which are prize winning; "if only one reverse in the garden it would have to be Chiloquin."



Left, Shining Light; right, Chiloquin (Gripshover photos)

Precedent (Mitsch) 2W-YPP 1960 — each flower perfect; strong, tall stems; perfect texture; outstanding color, nice size; good show flower, especially for collections.

Peeping Tom (P. D. Williams) 6Y-Y 1948 — always first sign of spring; long-lasting, apparently disease free, multiplies at a reasonable rate; blooms last very long in the garden.

Inverpolly (Lea) 2W-W — strong grower; very white, pure and chaste; great substance and form; blooms late and takes time to fully develop.

.....

Cultivars introduced since 1970 which are doing well for our reporters are listed alphabetically.

Apostle (Pannill) 1W-Y 1978 — beautiful bicolor with excellent show qualities.

Arach Inverse (Mitsch) 2W-GWY 1977 — smooth overlapping perianth; reverses according to color code.

Arndilly (Lea) 2W-R 1972 — a Lea red and white with very white perianth making the crown appear even redder; does well in the garden as well as at the show.

At Dawning (Mitsch) 1W-P 1975 — color is pure pink which doesn't fade in sun; every bloom perfect; healthy and multiplies well.

Avalon (Richardson) 2Y-W 1977 — good size and perfect form; a true reverse bicolor.

Balvenie (Lea) 2W-GPP 1976 — clean, neat white perianth; lovely, delicate pink cup, deeper at the edge with beautiful green eye; slow to increase.

Bee Mabley (Fitzwater) 3W-YYO 1973 — a beautiful flower; tall stems; large, stiff, flat perianth glistens; classic in form and interesting in character; a standout in a crowded class.

Bold Lad (Richardson) 2Y-O 1974 — takes several years to settle then is a sight to behold! Silky smooth, flat perianth; neat crown is virtually sun-proof; bloom takes several days in garden to reach good size.

Bonus (Mitsch) 6Y-Y 1972 — early bloomer with good form and color.

Buckskin (Evans) 2Y-Y 1973 — a later blooming flower with good form and substance; pale lemon color; increases well; excellent garden flower.

Cairngorm (Richardson) 2Y-WPP 1976 — a very lovely flower with a crown that turns rather buffy in color (definitely NOT pink) as it ages; multiplies rapidly and is long-lasting in the garden; most floriferous sending up blooms over a period of time.

Capitol Hill (Lea) 2Y-Y 1980 — good daffodil for collections; great form and substance; rim of cup is orange. (Reporter stated that Lea lists it 2Y-Y and RHS lists it 2Y-R)

Chelan (Evans) 2Y-W 1975 — ideal form, reverses beautifully and increases well; a late blooming show flower.

Coho (Evans) 1W-W 1974 — excellent *white*, *white* trumpet blooming a bit later than Queenscourt.

Cold Overton (Noton) 2W-W 1976 — beautiful white with lovely green eye; good substance.

Como (Gourlay) 9W-GYR 1973 — very round perianth, strong colors in cup, tall stems — everything that's expected of a good poet.

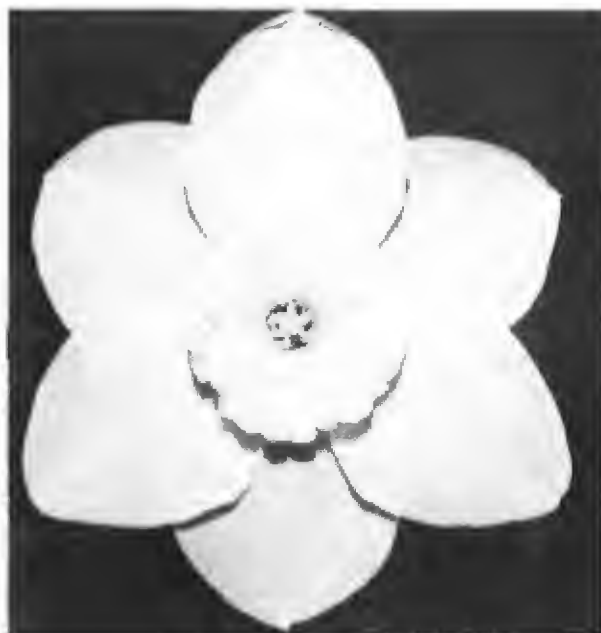
Coral Light (Kanouse) 2W-WWP 1972 — show quality in every respect; *strong* pink edge on cup.



Left, Balvenie; right, Crenelet (Knierim photos)

- Crenelet (Duncan) 2W-W 1977 — enormously broad perianth which is flat and requires no grooming; opens without a nick even though cup is cut and fringed; a good increaser which shows no inclination to rot.
- Delegate (Fowlds) 6W-Y 1971 — attractive flower with good form.
- Elegant Lady (Robertson) 1W-Y 1980 — large, classic bicolor that “stops the viewer in his tracks;” strong and apparently healthy; truly elegant.
- Executive (Mitsch) 2Y-Y 1972 — so precise, so straight, such a beautiful “goldy” yellow; very smooth and long lasting.
- Fastidious (Mitsch) 2W-W 1971 — clear white, good form and substance.
- First Formal (Throckmorton) 3W-YWP 1974 — a remarkable, very large bloom, every one seeming to be perfect, quite long lasting and extremely tall; the small, crystalline white cup with greenish eye and pearlescent hues vary through pink and gray, ultimately becoming white.
- Fruit Cup (Morrill) 7W-Y 1977 — it flourishes; three florets to a stem with apricot peachy cups and a most delightful fragrance.
- Gin and Lime (Carncairn) 1Y-GWW 1973 — good form and substance; reverses well.
- Glad Day (Mitsch) 2Y-O 1974 — a standout in the garden because of its attractive color.
- Golden Amber (Ballydorn) 2Y-ORR 1975 — unusual color combination, hot color in the cup with a “buffiness” in the perianth.
- Golden Wings (Ballydorn) 6Y-Y 1977 — large golden flower; late bloomer; good substance; lasts in the garden.
- Heat Haze (Carncairn) 2Y-R 1979 — unbelievable substance even in hot weather; good form.
- High Note (Mitsch) 7Y-W 1974 — good form, texture, and substance and it reverses beautifully.
- High Repute (Mitsch) 2W-P 1975 — a spectacular flower; huge and colorful.

- Ibberton (Blanchard) 3W-YYO 1974 — striking color; show flower in every respect.
- Irish Light (Richardson) 2Y-R 1972 — marvelous color; large flowers with tall strong stems; great substance; healthy.
- Lancaster (Ballydorn) 3W-GYO 1977 — sturdy blooms with much substance; nice round perianth; cup has deep orange rim and deep green eye.
- Limey Circle (Robertson) 3W-WWY 1980 — round overlapping perianth, graceful, not stiff; lots of green in the cup.
- Loch Lundie (Lea) 2Y-R 1978 — thick almost waxy substance; clean, bright glistening sheen.
- Loch Owskeich (Lea) 2Y-O 1971 — superb, smooth flower; good form and nice contrast.
- Lucy Jane (Link) 9W-GYR 1975 — resembles Sea Green but has better form; flat overlapping perianth, thick heavy substance, smooth texture with sheen, rather short neck and strong stiff stem. Very scarce variety; well worth using for hybridizing.
- Lyric (Duncan) 9W-GYR 1977 — elegant, refined flower; spicy sweet fragrance; corona is a flat disc.
- Northern Sceptre (Ballydorn) 2W-YYR 1975 — “eye-stopper” in a show; lasts well in garden and is a good increaser.
- Nutmeg (Evans) 2W-Y 1976 — beautiful in all stages of development, marvelous substance and perfect form.
- Odyssey (Pannill) 4W-WYY 1978 — smooth and petals are not too crowded; soft and pleasing; good double.
- Park Springs (Abel Smith) 3W-WWY 1972 — demure in color it approaches perfection in form; good substance.
- Patrician (Mitsch) 2Y-Y 1974 — very consistent from year to year and multiplies almost out of control; blooms quite early and most of the flowers are perfect.
- Pet Finch (Jefferson-Brown) 7Y-O 1975 — is a “glorious” daffodil; its deep golden perianth sets it apart from others in its class.



Left, First Formal (Gripshover photo); right, Gin and Lime (Knierim photo)

- Phantom (Mitsch) 11W-P 1975** — good quality white perianth; soft clear pink corona splits and lays flat against the perianth segments; attractive flower for arrangements as well as show.
- Phebe (Link) 9W-GYO 1975** — blooms stand above foliage on strong stems; good increaser and sweet scented; has good characteristics of its parents, *Sidelight* and *Sea Green*.
- Picnic (Evans) 2W-Y 1976** — is just as nice and reliable as its sister, *Nutmeg*.
- Pink Flare (Evans) 2W-P 1976** — pure white perianth; smooth heavy texture and good pose; corona retains its pink color many days.
- Pink Wing (Evans) 2W-P 1979** — healthy and lovely.
- Première (Duncan) 2W-GPP 1973** — excellent form; good increaser; pink coloring varies from year to year but is worth growing for its good form.
- Pure Joy (Mitsch) 2W-Y 1971** — lovely smooth bloom with tremendous substance; quite round flowers appear smooth as glass and show table perfect; nice contrast; lasts in garden at least two weeks; slow to multiply.



Left, *Première*; right, *pure Joy* (Knierim photos)

- Quail (Mitsch) 7Y-Y 1974** — multiplies rapidly and blooms vigorously; one of the first daffodils to open and among the last to fade.
- Rim Ride (Pannill) 3W-GYO 1976** — a pert Division 3 flower with good cup color that stands out; good form as well as graceful.
- River Queen (Pannill) 2W-W 1977** — beautiful flower in all respects; only fault is that it increases slowly.
- Rufford (Abel Smith) 2W-P 1975** — petals are broad and flat; very large pink cup.
- Safari (Richardson) 2Y-O 1972** — a very consistent cultivar; all blooms are good and quite large; cup is sunproof.

- Seraph (Mitsch) 9W-GYR 1976 — very rounded, perfectly formed, overlapping white perianth; very green eye, yellow band and broad orange/red rim; will be strong competition for Angel Eyes.
- Surtsey (Evans) 2Y-R 1972 — thick substance, brilliant cup color.
- Sweet Prince (Evans) 1YW-WWY 1978 — good gold color; when fully developed it has a white halo at the base of the trumpet; holds up well in rain and wind; increases well.
- Tyneham (Blanchard) 3W-R 1974 — large round flower; good overlap of the petals; thick substance and clear color.
- Valediction (Richardson) 3W-GWW 1976 — pure white flower with a beautiful green eye; a smooth flower with good form; a show winner.
- Vocation (Duncan) 2W-P 1976 — valued for its deep pink cup color which it retains until the flower dies, it has breeding possibilities; a sister to Crenelet.
- Water Music (Havens) 2Y-W 1975 — holds its substance very well and still reverses; increases well; lasts in the garden.
- Wedding Band (Throckmorton) 3Y-WWY 1977 — each bloom appears as if mechanically fashioned for perfection; when first open perianth is a glistening crystalline white and the cup has a greenish eye, a pale mid-zone and a golden rim; a perfectly round flower; the perianth gradually tones to yellow and the cup becomes dead white except the rim which remains yellow and appears the same shade as the perianth; a true reverse bicolor Division 3 flower.
- White Charm (O'More) 2W-W 1971 — beautiful white flower with good substance; a show winner.
- White Phantom (Carncairn) 1W-W 1975 — a good white trumpet with a glistening diamond-dust luster.
- Wind Song (Throckmorton) 2Y-YYP 1974 — may be the perfect "toned" daffodil; it begins life with a pure white perianth and golden cup; within a very few days the perianth is a beautiful moonlight-yellow tone and the cup pales somewhat and develops a cinnamon-pink rim; entirely healthy; grows well and multiplies at least at the usual rate.

A GOLDEN ANNIVERSARY EXHIBIT

MARIE BOZIEVICH, *Bethesda, Maryland*

Last spring I received a letter inviting the ADS to place an exhibit in a Golden Anniversary Exhibition of the National Council of State Garden Clubs to be held September 12 in Washington, D.C. The exhibits were to illustrate significant projects. I felt that Dr. Throckmorton's Daffodil Data Bank and Color-Coding were indeed significant projects and started thinking about ways to document them. I could make posters, of course, but I wanted to do something more dramatic, so decided to try to arrange for Phil Phillips to ship some flowers from New Zealand.

When I talked to Phil at Memphis he was enthusiastic about the project and we set to work to try to arrange a foolproof plan. The main obstacle, time-wise, would be the Quarantine Service inspection of the flowers on arrival in the United States. The spokesman for the Quarantine Service here in Washington told me that things would be expedited if I had an agent in Los

Angeles handle it there. So I called Marilyn Howe and asked her to act as my agent. (In addition to the fact that she is a very competent and devoted ADS member, I didn't see how any cargo agent or inspector could resist her smile.) She generously accepted the assignment to alert the Quarantine Service there, to see that the package went through Quarantine and Customs without undue delay, and to be sure they were placed on the continuing flight from Los Angeles to Washington, D. C. We knew we would have to arrange for an inspector to stay overtime, because all flights from New Zealand arrived after normal working hours.

Phil and I had letters flying back and forth and thought we had everything under control, when on September 1st, the flight we were planning to use from New Zealand was cancelled. Finally, after more letters and plan adjustments, all was arranged.

In the meantime, I had prepared three illustrated posters telling the story of the Data Bank, the RHS Classification System and Color-Coding. To display the flowers I borrowed vases from the Washington Daffodil Society and a set of wooden stepped shelves from the National Arboretum which I covered with pale green cloth.

"D-Day" arrived! Phil had cut, packed, and dispatched the flowers two days before; Marilyn had shepherded them through Los Angeles the evening before, and they were scheduled to arrive at Dulles Airport early in the morning. But— I listened in disbelief as the cargo agent told me that he did not have the package, or even a waybill for it, and it wasn't "on the computer." At my insistence that the flowers had been on the flight, they instituted a search for them and three hours later discovered that they had been put on a truck at plane-side and sent to National Airport. The truck had broken down in between the two airports. I hastened to National to pick them up and at noon the package was finally in my hands.

At home I unpacked the flowers, cut the stems, put them in tepid water with a bit of sugar (as Phil had instructed) and gave them a few hours in a cool, dark room to recover from their ordeal. That evening Mary Pamplin, an ADS member from nearby Virginia, and I staged the daffodils in vases and labeled them. I sprayed their faces and put the vases on wet newspapers in our cool garage for the night.

Next morning my daughter and I set up the exhibit in the ballroom of the Pan-American (O.A.S.) Building. It is an elegant room with white paneling and gold and crystal chandeliers. As we worked, people were crowding around, asking questions about the flowers and even reading the posters! I placed a *Data Bank Print-Out* and a copy of *Daffodils to Show and Grow* on the table and there was real interest in them. That evening, at the Champagne Reception, our exhibit was the conversation piece, and I felt that everything had been worth-while!

ADVERTISING RATES

Advertising rates for the *Journal* are as follows: full inside page, \$75.00; one-half page, \$45.00; one-quarter page, \$30.00. For additional information, write the Chairman of Publications, Mrs. Robert Cartwright.

BULLETIN BOARD

CALL OF THE ANNUAL MEETING

The annual meeting of the American Daffodil Society, Incorporated, will be held on Friday, March 27, 1981, at Del Webb's Newporter Inn, Newport Beach, California, for the following purposes:

- 1) for the election of officers and directors as provided by the By-Laws
- 2) to take action and transact any other business which may properly and lawfully come before the meeting.

By order of the Board of Directors
Kathryn S. Andersen, Secretary

ADS GOLD AND SILVER MEDALS

Members are reminded that nominations—in triplicate—for the ADS Gold and Silver Medals may be made by any member of the Society, and seconded by another member. All nominations should be submitted to the president, who serves as chairman without vote of the Honors Committee, not less than thirty days before the annual meeting at which it is proposed the award be made.

The Gold Medal is for "recognition of creative work of a pre-eminent nature in the understanding and advancement of daffodils," while the Silver Medal is "to recognize outstanding service to the Society."

The three immediate past presidents, Charles Anthony, William O. Ticknor, and William Roesé, make up the Honors Committee.

Previous winners of the medals are:

DATE	GOLD MEDAL	SILVER MEDAL
1959	Dr. E. van Slogteren, Holland	—
1960	B. Y. Morrison	—
1961	Dr. John C. Wister	—
1962	Judge Carey Quinn	Mrs. Lawrence R. Wharton
1963	Dr. Abilio Fernandes, Portugal	Mrs. Goethe Link
1964	—	George Lee
1965	Grant E. Mitsch	Willis Wheeler
1966	Alec Gray, England	Laura Lee Cox
1967	—	Kitty Bloomer
1968	—	Harry Tuggle
1969	—	—
1970	—	Wells Knierim
1971	—	—
1972	Matthew Fowlds	Roberta Watrous
1973	—	John Larus
1974	—	—
1975	Murray Evans	Polly Anderson
1976	Matthew Zandbergen, Holland	Bill Pannill
1977	Helen Richardson, Ireland	Tom Throckmorton
1978	—	—
1979	—	—
1980	Tom Throckmorton	Marie Bozievich

ATTENTION, BOARD MEMBERS

Board members are reminded to submit their comments on the proposed handbook revisions without delay to Chuck Anthony or Marie Bozievich so that action may be taken at the March Board Meeting.

ATTENTION, JUDGES

As discussed at the fall Board meeting, judges are reminded that candidates for the Rose and Miniature Rose Ribbons may be brought up from any class in the show, whether the bloom was recipient of a ribbon or not. All that is required is that the bloom score 90 points on the ADS scale. It is possible for a bloom to score 90 and still not win a ribbon in classes where the competition is extremely stiff. Be aware of good seedlings as you judge the various classes.

WHERE CAN I GET . . . ?

CULTIVAR:

Perky 6 W-Y

Cristobal 1 W-Y

DESIRED BY:

Malcolm Bradbury

The Wall House, 38 Powers Hall End
Witham, Sussex, England

COLOR CODE CHANGES — 1980

Foxfire	from 2 W-GWP	to 2 W-GWO
Fiery Flame	from 2 Y-R	to 2 O-R
Exalted	from 2 Y-R	to 2 O-R
Rio Rouge	from 2 Y-R	to 2 O-R
Altruist	from 3 Y-R	to 3 O-R
Coppertone	from 3 Y-R	to 3 O-R
Cool Flame	from 2 W-R	to 2 W-P
Rubythroat	from 2 W-R	to 2 W-P
Magician	from 2 W-R	to 2 W-P
Cairngorm	from 2 Y-WWP	to 2 Y-W
Matador	from 8 Y-R	to 8 Y-GWO
Almira	from 9 W-YYR	to 9 W-YOR
Starfire	from 7 Y-R	to 7 Y-Y

Pidget should be 9 W-GYR.

Flower Drift is Division 4.

Miniature Changes are Flomay to 7 W-WPP and Gipsy Queen to 1 Y-WWY.

Bill Roesé says that the color code for La Paloma should be 3 W-GYR and not 3 W-GYP as given in his list.

Park Springs was coded 3 W-YYO. Should it be a 3 W-Y or 3 W-WWY? Revelation is coded 2 W-O but those in the East report it as 2 W-Y. Will those who grow these two cultivars please let me know how they grow for them as soon as possible after the 1981 season.

Again, may I express my thanks to all ADS members who write me regarding suggested color code changes. It is only with your help that I can do my job effectively.

—AMY COLE ANTHONY, *Classification Chairman*

JUDGING SCHOOLS

The Board of the American Daffodil Society has voted to require a refresher course for accredited judges every three years. No examinations will be required. This is effective with publication in the *Journal*. Some regional vice-presidents requested approval for courses immediately. Attendance at any one of the three courses in an approved judging school is acceptable. Courses may be held at national, regional, or state meetings of ADS and at some other society or club meetings with approval of the ADS Judging Schools Chairman. Requests for such approval and for approval of instructors should be received by the Judging Schools Chairman in time for publication in the *Journal* so that all ADS accredited judges may avail themselves of the opportunity for the refresher.

Student judges are reminded that Course III will be held in Richmond, Virginia, April 13, 1981, Mrs. Lester Belter, Chairman. Course II will be held in Chaska, Minnesota, in mid-May, 1981, Julius Wadekamper, Chairman. Course I will be held in Conway, Arkansas, on March 7, 1981, Mrs. Volta Anders, 1628 Maul Rd., N.W., Camden, Arkansas 71701, Chairman.

—MRS. MERTON S. YERGER, *Judging Schools Chairman*

MINIATURE MATHEMATICS

Addition and subtraction: this is the time of year that the Approved List of Miniatures officially adds a few new names, and this year, one is subtracted. First, the subtraction. In the June issue of the *Journal* we gave notice that The Little Gentleman, 6 Y-Y, was being seriously considered for de-listing as an Approved Miniature. This is now a fact, which the new issue of *Daffodils to Show and Grow* will indicate. In other words, the H figure (height) for The Little Gentlemen, has been changed from 1 to 2.

To make up for this reduction in the list of miniatures, we are adding four new ones. Actually, one of these is really an old one, a Division 10 jonquil: *N. jonquilla henriquesii*. Why it hasn't been included on the Approved List before this is a mystery.

The other three additions are: Junior Miss, 6 W-W, introduced by Bill Pannill in 1977; Laura, 5 W-W, introduced by Lindsey Dettman in 1979; and Sir Echo, 1 Y-W, offered by Michael Jefferson-Brown. Although none of these is widely grown, all have been seen by a number of ADS members who recommend their addition to the Approved List.

We know that other candidates are in the offing, so we hope that miniature enthusiasts will be quick to acquire any small daffodils that are available, and try them out. The next step is to let the committee know the results of your testing. It would be helpful if you were to take pictures (slides, if possible), which should include some object to give an idea of the scale of the stem and the flower.

PEGGY MACNEALE, *Chairman, Committee on Miniatures*

Is your Post Office loafing on the job? Put 'em to work. Write to the Round Robin Chairman.

DAFFODIL HYBRIDIZERS: FALL IN! COUNT OFF!

A request has been submitted to the Chairman of Breeding & Selection ADS to compile a list of daffodil growers whose primary interest is in hybridizing together with their chief goals. The Hybridizers Round Robin serves very well as a forum for exchange of ideas but that often is more than six months in flight. Only a small percentage of hybridizers are served by the Robin so that compilation of a list of members who are growing daffodils from seed together with their degree of interest and field of interest may be a useful tool to facilitate exchange of ideas.

Strict interpretation of primary interest might almost limit the list to commercial growers. Also how many hybridizers start out with one specific goal and don't exploit serendipitous breaks?

To simplify organization the following level-of-interest categories are suggested:

1. Primary interest is hybridizing—do not show.
2. Primary interest is hybridizing—use 50% seedlings for breeding and show only to have flowers evaluated in competition.
3. Primary interest is big show competition—hybridize only to exploit best named varieties.
4. "Drunken bumble bee" still evaluating seedlings.

If you are a hybridizer and are interested in having such a list please send your name & address, level-of-interest category, fields of interest (standard and/or miniature) and goals toward which you are working to: Dr. W. A. Bender, 533 South 7th St., Chambersburg, PA 17201.

A "Dutch Treat" Hybridizers Breakfast has been planned for Friday morning of the California Convention, 1981. Subjects for discussion as time permits are listed: (1) Use and dissemination of list of hybridizers. (2) Establishment of Pollen Bank. (3) What can be done to salvage a hybridizer's life work after his or her death? Check the Hotel Bulletin Board for time and meeting room.

—W. A. BENDER

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION

(Act of August 12, 1970; Section 3685, Title 39, United States Code.)

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Owner of the publication is American Daffodil Society, Inc. There are no bondholders, stockholders, or mortgagees.

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—Mary Louise Gripshover

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Like to increase your daffodil collection? Round Robin friends often share bulbs as well as thoughts. Join a Robin by writing to Richard Ezell, 1341 Lincoln Way East, Chambersburg PA 17201.

DAFFODILS — 1980

Copies of the Royal Horticultural Society's time-honored Yearbook, *Daffodils — 1980*, is on the high seas at the time of this writing. Like everything else from abroad its price has jumped and this year's edition sells for \$5.00. There will *NOT* be an automatic distribution and billing this year. When it arrives orders will promptly be filled. If you want it, send in your order now.

RHS Editor Elspeth Napier has produced a gem-packed edition. *Daffodils 1980* includes reports on shows in various countries and on the trials at Wisley. Plus: "Fifty Years of Split Corona" by J. P. Gerritsen, "Early Forcing of Narcissus Bulbs" by R. M. Millar, "Not According to Schedule" (points on why flowers are disqualified) by John Blanchard, "Endomycorrhizas and Root Hairs" by M. T. Chilvers and M. J. Daft, "Present-day Mass Production of Bulbs" by P. J. Wallace, "Murray Evans' Daffodils in the Oregon Hills" by Fr. A. Bucholz, "Daffodils at Barnard Castle" (north of England) by Wilson Stewart, a final report on the Wisley trial timing of cutting daffodils, and lots more.

—William O. Ticknor

DAFFODILS TO SHOW AND GROW — 1980

Our new "List" is waiting impatiently to be born and will be available at \$4.00 a copy to members sometime this fall. *Daffodils To Show and Grow*, 1980 edition, is similar in content to the first edition, but it will have a somewhat changed name, a new shape and size, a green cover, it will include all newly registered daffodils from 1977 to 1980, it will have a list of daffodil breeders and their country of origin, contributed by Mary Lou Gripshover, and a foreward written by H. A. (Tony) Kingdom, Chairman of the RHS Narcissus and Tulip Committee. Furthermore, it will be a joint publication of The American Daffodil Society and the Royal Horticultural Society.

For those of you who are not familiar with the first edition, *Daffodils to Show and Grow 1980* is a pocket sized, classified, descriptive list of over 5,000 daffodils. No daffodil judge can afford to be without it. Every daffodil exhibitor should have it, and it will be of value to every lover of daffodils. It is the result of the brilliance and energy of Dr. Tom Throckmorton of Des Moines, Iowa, combined with a great computer.

Orders and checks have been already received for more than 150 of these books. The books will be mailed out as soon as they are received from the printer in rotation to the receipt of order. The price is \$4.00 and checks should be made out to the American Daffodil Society and orders sent to the American Daffodil Society at Tyner, NC 27980.

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ROBIN FEATHERS

In several Robins there is concern about the increasing problem of the daffodil fly. With granular Chlordane gone and confusion over Dylox R (although recommended by the Department of Agriculture, no supplier seems ever to have heard of it, and regular Dylox—without the "R"—is mighty expensive) control of this pest may come down to chasing about one's planting with a butterfly net, as Phil Phillips recommends, or zapping the adult flies with wasp and hornet spray as Peggy Macneale does.

1981 SHOW DATES

The following are incomplete listings of the 1981 Daffodil Show Dates. If you desire your show listed in the *March Journal*, please forward the information needed to the Awards Chairman by January 1, 1981.

March 14-15 - Fortuna, CA - Fortuna Garden Club at the Fortuna Monday Club, 610 Main St.; information: Mrs. Mary Lou Van Deventer, 366 Garland Ave., Fortuna, CA 95540.

March 19-20 - Dallas, TX-Southwest Regional show by the Texas Daffodil Society at the Dallas Garden Center; information: Mrs. Royal A. Ferris, Jr., 4125 Turtle Creek, Dallas, TX 75219.

March 26 - Newport Beach, CA - National Show at Del Webb's Newporter Inn, Newport Beach, CA; information: Jay Pengra, 954 St. Katherine Dr., Flintridge, CA 91011.

March 28 - Mount Sequoia, AR - By the Arkansas Daffodil Society at the Methodist Assembly Grounds on Mount Sequoia, Arkansas; information: Mrs. Victor M. Watts, 1619 West Maple, Fayetteville, AR 72701

April 4 - Paducah, KY - by the Kentucky Daffodil Society at the Paducah Open Air Market, 2nd and Washington Streets, Paducah, KY; information: Mrs. Richard Roof, 249 Cardinal Lane, Paducah, KY 42001.

April 4-5 - Nashville, TN - by the Middle Tennessee Daffodil Society at Botanic Hall, Cheekwood, Nashville, TN; information: Mrs. Joe Talbot III, 6117 Bresslyn Rd., Nashville, TN 37205.

April 4-5 - Hampton, VA - by the Tidewater Virginia Daffodil Society at the Holiday Inn (Coliseum) in Hampton, VA; information: Mr. H. A. Rountree, Jr., 276 Harris Creek Rd., Hampton, VA 23669.

April 8-9 - Chapel Hill, NC - State Daffodil Show by the Chapel Hill Daffodil Society in the Totten Center, North Carolina Botanical Garden, Chapel Hill, NC; information: Mrs. W. C. Wiley, 412 Cameron Ave., Chapel Hill, NC 27514.

April 10 - Scottsburg, IN - by the Indiana Daffodil Growers-South at the Presbyterian Church, Highway 56 & Washington Sts., information: Mrs. Verne Trueblood, RFD 3, Box 187-A, Scottsburg, IN 47170.

April 11 - Princess Anne, MD - by the Somerset County Garden Club at the Peninsula Bank; information: Mrs. H. Parker Tull, Jr., 11 E. Main Street, Crisfield, MD 21817.

April 18 - Carbondale, IL - Illinois State Show by the Southern Illinois Daffodil Society at Southern Illinois University; information: Mrs. Glen Sands, RR 2, Box 341, Lake Rd., Murphysboro, IL 62966.

April 21-22 - Chambersburg, PA - Northeast Regional Show by the Chambersburg Daffodil Society at the Chambersburg Recreation Center, South Third St.; information: Mrs. William A. Nelling, 657 Philadelphia Ave., Chambersburg, PA 17201.

April 22-23 - Downingtown, PA - by the Woman's Club of Downingtown at the Woman's Club Clubhouse, Manor Ave.; information: Mrs. James C. Patterson, 130 Woodland Circle, Downingtown, PA 19335.

- April 22-23 - Baltimore, MD - by the Maryland Daffodil Society at the Brown Memorial Church, North Charles St.; information: Mrs. Frederick Viele, 237 Cooley Mill Rd., Havre de Grace, MD 21078.
- April 23 - Indianapolis, IN - State Show by the Indiana Daffodil Society at the Meridian Street United Methodist Church, 5500 North Meridian St.; information: Mrs. Robert H. Brunner, 610 College Lane, Indianapolis, IN 46240.
- April 24 - Wilmington Del. - by the Delaware Daffodil Society at the St. Albans Episcopal Church, 913 Wilson Rd.; information: W. R. MacKinney, 553 Woodhaven Rd., West Chester PA 19380.
- April 25-26 - Columbus, Ohio - State Show by the Central Ohio Daffodil Society at Upper Arlington Municipal Services Bldg., 3200 Tremont Rd.; information: Mrs. Hubert Bourne, 1052 Shadyhill, Columbus, Ohio 43221.
- May 9-10 - Chaska, MN - Daffodil Society of Minnesota at the Minnesota Landscape Arboretum, 3675 Arboretum Dr., Chaska, MN; information: Michael L. Heger, Route 1, Box 64, Waconia, MN 55387.

OTHER 1981 SHOW DATES

April 11 - 12 - Gloucester, Virginia

April 1-2 — Suffolk, VA - by the Garden Club of Virginia at the Nansemond River Academy; information: Mrs. Thomas J. O'Connor, 1020 Maryland Ave., Suffolk, VA 23434. (Not an ADS show.)

Matthew Zandbergen wrote on September 9, 1980: "By the way, Suzy produced another 'gel,' Marlot, the other day. So she made me Granddad once again!" We all know Suzy, for whom he named the red/yellow jonquil hybrid, and are awaiting the miniature Little Suzy he plans to introduce when there is sufficient stock. That one will be named for Suzy's first daughter. Now perhaps we can look forward to introduction of a daffodil Marlot!

—MEG YERGER, *Princess Anne, Maryland*

How do others do it? Find out. Join a Round Robin.

SPRING SHOW IN BRADNER—BULB GROWING CAPITAL OF CANADA

DIANA R. SHEPPARD, *Mt. Lehman, British Columbia*

There is a treat in store for those who will visit the Spring Flower Show of the Bradner and District Horticultural and Bulb Growers Association to be held on Saturday, April 27, in the community hall, Bradner. . . .Come and see for yourselves that Solomon in all his glory could not be arrayed like one of these. . . .Come and see the many sterling varieties that you will like to deck your garden with, not to replace existing old varieties, but to give them better companions. . . .Come and see what we are striving to accomplish in the way of building up a new industry for this section of the Fraser Valley. We believe that our land is second to none for the production of first class bulbs. . . .This exhibition is one way in which the eyes of those interested can be focused on our district.

Fenwick Fatkin

Abbotsford, Sumas and Matsqui News

April 17, 1929

This was the vision of a few pioneers of the flower growing industry at Bradner, a rural community, 38 miles east of Vancouver, British Columbia, Canada. Bradner consisted of little more than a general store, post office, school, a few ambitious farmers and a railroad station (the main link with the city). The store and post office remain, the school has grown, the area is less rural, but the ambitious farmers remain, linked to the city not by rail but by first quality roads. About 150 acres in the community are devoted to narcissus culture today.

Beginning in 1928 as a small one-day parlor show, the Bradner Flower Show has been staged ever since, except for a few "war years," growing to today's major three day attraction. In recent years people from many parts of Canada, U.S.A., and Europe have been known to attend. Many drive from Vancouver solely to see the show. As many as thirteen tour buses may arrive each day.

In early years judging of entries was held and prizes were awarded, but was discontinued in the early 1940s. Today all entries are exhibition, in a spirit of friendship, with no single exhibitor receiving special recognition for his blooms. This unique show is believed to be the only noncompetitive exposition of narcissus in the world. As in the beginning, members of the community unite to organize the best show possible.

From the beginning floral art exhibits have been encouraged. Some of the community's talented Japanese ladies present the beautiful traditional designs of their ancestors. Even bonsai trees have been worked into these exhibits. Some have arranged house plants and spring shrubbery. At times school children have been asked to participate. Each year's show presents a theme featuring a large central production and supporting exhibits. A few past themes have been "Year of the Child" (1979), "U.S.A. Independence Bicentennial" (1976), "Canada Confederation Centennial" (1967). Other national and local anniversaries and celebrations as well as Easter have been presented. Although exhibits of the many cultivars and floral arts are presented by individuals, the central theme is a joint community effort.

"Spring Glory" filled the hall April 11, 12, 13, 1980, when some 400 cultivars of narcissus—some unnamed seedlings of local hybridizers—beckoned 8,200 people (about average attendance) in for a little visit. A large sign made of daffodil heads welcomed the visitor as he approached the front door. Upon entering he saw to his right a lovely display of dried floral art. Some flowers in these center pieces and framed works were last year's daffodils and Pacific dogwood. Before him Snow White's dwarf friends lazed beside their cabin on a large central revolving carousel. To his left an Indian family camped in a field of miniature daffodils, while in a third corner elves skipped among azaleas beside a waterfall and babbling brook. He saw the tiered shelves around the outside walls and the few tiered tables on the floor. These held the familiar old-timers and exotic newcomers. On the ends of these tables and on the walls, art works of the school children portrayed their conceptions of narcissus, hyacinths, and tulips.

The show, being a community effort, helps support many community projects. A small door admission is charged, cut blooms are sold, and a tea room is operated. All labor is voluntarily donated. Today the show is staged by the Bradner Community Club in the "new" hall they built in 1960. This building is used by Girl Guides and Boy Scouts, and the Bradner Parent Teachers Association. It is also used for political rallies, wedding receptions, Victoria Day, and other community celebrations. The community club maintains an adjacent four acre sports field and supports lacrosse, soccer, and softball teams. Proceeds from flowers sold at the show are used by the ladies auxilliary for buying of much needed equipment for our municipal general hospital.



A display of dried floral art, incorporating daffodils (Sheppard photo)

THE TAZETTAS

HELEN K. LINK, *Brooklyn, Indiana*

As an introduction I would like to point out that I am going to deal with the tazetta species first, then the wild hybrids, tazetta hybrids, and lastly the poetaz. Our tazettas of garden origin are mostly poetaz, although they have tazetta characteristics.

HISTORY

The species tazetta is the widest spread and most variable of all daffodil species. They extend from Spain and France in an almost unbroken line through Portugal and the Mediterranean regions of Southern Europe and North Africa, to Syria, Asia Minor, Persia and Kashmir, and even as far as China and Japan. Naturally with such a range local varieties occur, differing in size and shape. (1)

In 1753 Linnaeus described the species tazetta as a "spatha multiflora, nectario campanulato, foliis planis" meaning multiflowered spathe, campanulate nectary (cup), foliage flat. (2) This terse description was sufficient for his purpose of pointing out the distinctions between the six plants which he considered the only species of the genus. The many flowered spathe divided tazetta and jonquilla from the others, because Linnaeus was unaware of the occasional occurrence of more than one flower in *N. serotinus* while the flat leaves of the tazetta contrasted with the awl-shaped leaves of jonquilla. This is characteristic of Linnaeus's methods as a lumper, and did not arise from a lack of knowledge of the many forms cultivated in Holland. In botanical terms the lumpers were those botanists who placed plants with the same general characteristics together in a group while splitters were very picky and went almost to extremes to divide plants of like kind into separate divisions because of some very small color or form difference. This brings to mind our modern day controversy over our present classification, which is the result of the work of both splitters and lumpers. The splitters are determined that color which is very unstable is of utmost importance while various length of cups are lumped together in some divisions. In another hundred years perhaps there will be other problems, all brought about by the whims of some well-intentioned daffodil buffs.

In 1753 Linnaeus was working in Dr. Georg Clifford's garden near Haarlem when he wrote of *N. tazetta*: "It varies in the size of flowers, in color, being white or yellow of nectary (cup) or petals or both, in varying doubleness, the size or shape of the cup and the number of flowers from each spathe."

In contrast to the thoughts of Linnaeus, let's look at what Burbidge said: "This plant has been irreverently styled the 'dustbin' or 'scapegoat' of the genus on account of its variability." (2)

In 1812 Salisbury invented the genus *Hermione* without distinguishing characters. He made it include as species *N. jonquilla*, *juncifolius*, *intermedius*, *schizanthus*, \times *tenuior*, and six others which are the only ones we now class as tazetta forms. These are Scilly White, *italicus*, *papyraceus*, Soleil d'Or, Grand Monarque, and Bazelman Major. (2)

Then Haworth came along and adopted the name *Hermione* and supplied generic characters, but of such a nature that Herbert declared they were founded on trivial features in some cases unfit even to support a specific

distinction. Since Haworth was a splitter he furnished the genus with fifty-four species, many of which were no more than garden forms. He did a good service in spite of the splitting for he arranged them into three sections according to their coloring. Herbert placed more stress on the length of the tube (cup) in relation to the perianth segments. That brought together plants too divergent in color and general appearance to seem naturally grouped. (2)

In 1875 J. G. Baker came up with a classification which was published in the *Handbook of Amaryllideae*; it was simple and convenient. He gave three series according to coloration (2):

Series I: Tazettinae bicolores, perianth white, corona yellow. The series was further divided into Section a, corona orange, and Section b, corona pale yellow.

Examples: Section a. *N. tazetta*, *N. Orientalis*, wild form

Section b. *Grand Primo*, quite variable.

Series II: Tazettinae albae, perianth and corona both white.

Examples: Baker lists *papyraceus* as the typical flower of this series. It is larger and possesses more vigor than any other of this class. The common name is Paper White, and it is extensively used for the cutting market. Since it is early it is usually the first to reach the cutting market. It is characterized by thin substance, and long narrow petals which form a starry perianth. In the wild it may be found growing at the base of Mt. Vesuvius.

N. pachybolbus, which grows in North Africa, is characterized by large bulbs and small flowers. It is not very elegant and is of more botanical interest than horticultural value. I first grew it for several years in the open ground with heavy mulch, but as Baker states, it comes up in early autumn and freezes back, thus no bloom. The past three years I have bloomed it beautifully in a cold greenhouse getting as many as six scapes from a bulb. The flowers are truly miniature, but foliage and height prevent it from being classified as a miniature. The form of the individual flowers is very good.

N. × dubius has refined small flowers, but is hard to grow. According to Jefferson-Brown (3) it is a hybrid between *N. tazetta* and *N. juncifolius*. The parentage of *dubius* is in accord with the natural distribution of *N. tazetta*, *N. juncifolius*, and *N. dubius*.

N. elegans: It is an autumn bloomer and found in Sardinia.

N. broussonetii: Characterized by its conspicuous yellow anthers. This is an autumn flowering species and is thought by some to be a cross with some other amaryllid, perhaps *Cooperia*. Some botanists place it with the tazettas while others separate it from the genus *narcissus* because of its absence of corona, or having only remnants of one. It grows only on the west coast of Morocco. It is said to be difficult to bring into bloom and the bulbs are very difficult to obtain. I have never seen it in bloom, but did order bulbs of what was to have been *broussonetii* but when they bloomed they were *papyraceus*.

N. canariensis: This is the smallest flowered white species known, very refined and occurs only in the Canaries.

N. panizzianus: Native of Spain, and in the blooming season the crown of the rock of Gibraltar is literally white with its bloom.

Series III. Tazettinae lutea, perianth and corona both yellow.

Most of the yellow petalled tazettas are of garden origin. Subspecies *italicus* resembles *N. papyraceus* in form with creamy yellow perianth and lemon colored cup. It is scarcely worth growing.

N. bertolonii, a North African species is thought to be the parent of Soleil d'Or. Moggridge called it *N. aureus* Lois. and thought its size and beauty were due to cultivation. Soleil d'Or has a very heavy scent similar to the tang of leather. It is known to have been grown in English gardens as early as 1732. (2)

In 1844 Mrs. Loudon came out with a book called *Ornamental Bulbous Plants*. She states that the word tazetta means small deep vessel, like a tea cup. At that time there were about 300 kinds grown and named and the best ones came from Holland. They were often flowered in glasses with the same treatment as hyacinths. She advocated planting in a rich, loamy soil, protecting in winter and digging only every three years and not then if doing well and not too crowded. (4)

It should be understood that the series classified by Baker were all species and wild hybrids. Later in areas where both *N. tazetta* and *N. poeticus* grew side by side in the wild they produced hybrids, one of which is *N. × biflorus*. This is a late blooming plant. I have never observed it with more than two blooms to the scape. It is sterile and will not set seed. The pollen is scarce and is not viable when tested on a gelatin sugar medium. Salisbury regarded it as "One of Nature's Mules" having carefully dissected more than a thousand specimens without finding even the rudiment of a seed, though they bore perfect pollen. Burbidge declared that the anthers seldom develop perfect pollen and its ovules are often abortive, but if fertilized with pollen from another species it can bear seed. (2)

By 1800 there were between 200 and 300 garden forms cultivated by the Dutch florists. The Van der Schoots did much breeding with the tazettas. Of the 120 registered in the 1969 *RHS Classified List*, twenty-four were originated by the Van der Schoots. During this period the tazettas were very popular because they were bunch-flowered and very sweet scented. The Japanese grew many. The Chinese Sacred Lily which is thought to be Grand Emperor is still popular for the Chinese New Year. It is grown in water. (See article in December, 1971, *ADS Journal* which gives its history and culture.) Kirby gives explicit directions for water culture for the tazettas. (5)

According to Jefferson-Brown (3) many of the tazettas in Series I will not grow outside in Great Britain, or will grow, but not flower satisfactorily because they start their foliage in early fall and try to bloom in December and January. Baker (6) listed twenty-nine forms of those with white perianths and yellow coronas. *Lacticolor* is probably the best known; however, it is believed that many of the old bicolor tazettas were raised in Holland. French Monarch, Scilly White, and Grand Primo Citroniere are plants of this type and are still grown in Cornwall and the Scilly Isles of Great Britain. I grow them in a cold greenhouse with a thermostat set at 40 degrees at night and they grow and bloom beautifully.

Burbidge and Baker list two pages of individual flowers of the tazetta. (6) The two plates show twenty-four different flowers which vary in form, color, size, etc. It is interesting to note that many of these are wildlings. Two are outstanding in form and color: namely *Hermione aurea* which is listed as the finest of all the yellow section and *Hermione Trewiana*, which is pictured as a very showy plant and was largely grown in the Dutch nurseries where it was

grown under the name of "Bazelman Major." It is very similar to *N. Orientalis*. It is doubtful that many of these varieties are available on the market today. Many are so much alike in various ways that it would take an expert to classify them correctly.

POETAZ CULTIVARS

Poetaz cultivars are a hybrid race and are the tazettas of our modern classification. The parents of the first cultivars were: seed parent *N. poeticus exertus ornatus* crossed with Grand Monarch, Glorious, and Grand Primo as pollen parents. One of the resulting cultivars was Elvira, Van der Schoot, 1904. Elvira later gave rise to Cheerfulness and Yellow Cheerfulness, a further sport. (3)

In the 1913 *RHS Year Book*, (7) the first to be printed, Peter Barr states in notes on hybridizing that there was a new useful race of hybrids raised by Messrs. Van der Schoot. These were the poetaz and were the result of crossing pollen of the best forms of old polyanthus with *poeticus ornatus* as seed parent. This same *Year Book* reported on daffodil shows (7), and it is interesting to note the large number of new cultivars which were placed in commercial hands. In a class for three stems each of nine different tazettas-poetaz the first award was given to the following collection: Klondyke, Elvira, Jaune a'Merveille, Ideal, Orient, Alsace, Aspasia, Scarlet Gem, and Irene. Second award went to Lucia, Grand Monarque, President Harrison, Klondyke, Maestro, Irene, Elvira, Jaune a'Merveille, and Orient. In all sixteen different cultivars were shown in the class. Poetaz Albert Vis, with a white perianth and orange cup (King Edward VII x Polyanthus Staten General), received an Award of Merit. Could we come up with sixteen different poetaz in a modern day show? In all there were twenty-six different cultivars mentioned in the 1913 *Year Book*. Rarely do we have more than a half dozen different cultivars in present day shows.

The 1914 *RHS Year Book* (8) had an article on "Daffodil Shows in America." There were two mentioned that year, one in Detroit, Michigan, and the other in San Rafael, California. Tazettas mentioned were Sunset, Klondyke, Towan, Grand Monarque, and Paper White Grandiflora.

In the 1934 *RHS Year Book* there is an article on "Narcissus in Holland" by J.F.C. Dix in which he states: "A very important part of the narcissus culture in Holland is taken by poetaz varieties; an area of nearly 100 acres is planted with them. Half of this is taken up by Laurens Koster, then followed by extent successively: Early Perfection, L'Innocence, white hybrid, etc." (9)

The 1940 *Year Book* (10) listed Cragford as one of the most popular. It was named after a prize-winning race horse which always came in a winner. It was originated by P. D. Williams in 1930 and won four awards including the Award of Merit and First Class Certificate. Since it was early flowering and could be forced very successfully for Christmas, it was very popular. Its texture is very crinkly and thus not of present day show quality, although it is an excellent, sturdy, and floriferous plant for the garden. It also naturalizes well in the sod.

In 1950 the RHS show winners were Martha Washington, raised by Frylink, 1948; Geranium, Van der Schoot, 1930; St. Agnes, Glorious, and Halvose, P. D. Williams, 1926; and Chinita, Chapman, 1922. (11)

Ten years later in 1960 Geranium and Martha Washington won the awards. (12) In 1969 Silver Chimes, Scarlet Gem, Geranium, Martha Washington, and Compressus won the awards. (13) In 1975 the winners were Geranium and Orange Wonder. (14) In 1976 the only tazetta mentioned in the RHS competition was Soleil d'Or. (15) It is hard to believe that after 248 years we have not made much progress with the tazettas.

It is too bad that the tazettas lost favor with the growers. As a result there have been few new hybrids. In recent years we have seen a little flicker of light of promise. Several new hybrids have been introduced. Hybridization has given us a certain amount of hardiness with the poeticus blood. One of the more recent introductions is Highfield Beauty of Mott origin, 1964, Australia. Poeticus blood has given us larger flowers, flatter cups, and fewer flowers, usually 2-6.



Left, Compressus; right, Matador (Link photos)

Americans who have introduced tazettas are Oregon Bulb Farms with Fame, Golden Dawn, and Matador. These were all from open pollinated Admiration. Powell introduced Hiawassee from Cassandra \times Paper White. This is one of the few all whites; it has a beautiful sheen. It is on the tender side in our area and also is subject to basal rot. Venice Brink registered Scented April in 1973 from an open pollinated Richard Tauber. It has scapes

of very good form, but only two blooms per scape so far in my garden (8W-YRR). Grant Mitsch has blessed us with some new poetaz; namely, Falconet, Hoopoe, and Motmot, all from Matador by *jonquilla*. Work is also being done on the poetaz at Rosewarne in Cornwall, Great Britain, with some good results. Some breeders on the west coast are also working on the tazettas-poetaz.

CULTURE

Some of the cultivars are hard to grow and it is not very easy to satisfy their demands. It seems the less they are lifted, the better. I have found they like a dry soil. In wet areas they will bloom the first year, then go downhill, while when planted in the sod they will bloom for many years. I have some that have been blooming in the sod for thirty-five years. Examples are *Aspasia*, *Silver Chimes*, *Orange Prince*, *Laurens Koster*, and *Abundance* (*Helios*) the first to bloom in the sod. *Matador* also has done well in the sod.

The species tazettas will not bloom for me out-of-doors. They are potted and grown in the cold house. As soon as the pots begin to show leaves emerging I give a light dressing of potash and phosphorus (0-20-20). After blooming the pots are watered and kept weeded in order to keep the bulbs growing as long as they will. Then the pots are placed under the bench and allowed to dry off until August when they are repotted if needed and watering begins. Once after blooming I give each pot a good watering with a liquid fertilizer with a low nitrogen content.

I have mulched all of the poetaz grown out of doors with heavy coating of pine needles for years, but this year I am trying some ground oak leaves as Mrs. Loudon suggests. (4)

I do not dig the bulbs any more often than necessary. On the whole most of the poetaz are slow to divide and can be left down three or four years without becoming overcrowded.

Although the tazettas are not as subject to basal rot as some other divisions, losses do occur, and it seems the more hybrid blood, the more susceptible the cultivars are to the rot. Rev. Bourne mentioned that susceptibility in a book written in 1907. (1) I have lost both *Highfield Beauty* and *Laetitia* over the years to the disease.

MINIATURES

There are a number of tazettas which are miniatures and are very helpful in forming miniature collections, namely, *Halingy*, *Minnow*, *Cyclataz*, *Angie*, *Hors d'Oeuvre*, *Shrew*, *Pango*, and the species *Canaliculatus*. Alec Gray has been the originator of most of the miniature tazettas.

WHAT OF THE FUTURE

The future of the tazettas is not very promising as there are no new tazettas and few improved poets that can be used as parents. Gray has suggested using some very good forms of *triandrus* with yellow tazettas or using *cyclamineus*. (16) Gray's *Cyclataz* came from *cyclamineus* x *Grand Soleil d'Or*, but perhaps the resulting forms would have to be placed in Division 6. He also suggests the use of chemicals and says if we can make a drug which increases fertility in humans surely it is not beyond the wit of man to manufacture one for daffodils. There is a chemical being used now to improve germination of seeds which I have tried, but do not have enough data at the

present time to make a worthwhile report. I think our problem is not so much with the germination of the seed, but getting seed to set on the plant in the first place. So many of the cultivars are sterile.

Gray also calls Division 8 the Cinderella of the divisions and said, "When it comes to the number of registrations even the odd-man out Division 11 far outstrips it with the production of ever more "splits." In the past thirteen years only seven cultivars have been registered in Division 8. This is a great pity as, ignoring the true tazettas which are not entirely hardy, poetaz are one of the most useful sections for garden decoration, cutting and pot culture." He gave two and one-half reasons for this failure in the daffodil world. Number one, raisers have concentrated on show daffodils with perfect symmetry and bunch-flowered sorts are not ideal; number two, almost all hybrids with tazetta blood in them are sterile. The one-half reason is that tazetta crosses take longer to flower and are slower to increase. He also said that he could not remember when Divisions 5, 7, or 8 had appeared in an Engleheart collection. (16)

The RHS *Classified List* contains some 10,000 names and about 100 of them are poetaz and tazettas (120 to be exact). Gray's statistics show the number registered up to 1900 to be 2, from 1900 to 1910 there were 16, from 1910 to 1920—11, 1920 to 1930—23, 1930 to 1940 the peak was reached with 28 registrations, 1940 to 1950—10, 1950 to 1960—5, 1960 to 1970—3. The 1978 *Data Print-Out* lists 75. These statistics show that from 1930 to 1940 the largest number ever was registered, then there was a sharp decline. This is a personal statement, but I believe there has been no incentive for breeders to work with the tazettas because the sights of the exhibitors and judges are on a big, bold, colorful, perfectly formed flower. In the U.S.A. I have never known the judges to give a scape from Division 8 a second look. Has one ever appeared in a Quinn collection? Do we ever read about them winning awards in the *Journal*? Naturally growers and exhibitors are going to grow what the judges will look at. In my opinion they spend very little time on the tazettas, and until they do receive some recognition there is no incentive for more breeding.

We have all kinds of awards set up by the ADS for collections, best of section, etc., but does a tazetta ever receive any recognition? I think not. They really are the "dustbin," "scapegoats," "Cinderellas," or what have you of the daffodil world.

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SOME NEW ZEALAND SHOW RESULTS.

P. PHILLIPS, *Otorohanga, New Zealand*

The North Island National Show was held at Pukekohe on September 11-12th. There were four entries for the British Raisers Gold Cup, requiring eighteen British raised cultivars, three of each. This was won by Peter Ramsay with Jim O'More second and Mavis Verry third. The American Silver Salver for nine blooms, not more than three of one cultivar, was won by Peter Ramsay who showed three Daydream, two Replete, Caro Nome, Precedent, and Amberglow. Second was R. Cull with three Audubon, three Honeybird, and three Daydream; and third was J. O'More with three Evans L43, two Chemawa, Scio, Cool Crystal, Daydream, and Rima. Also showing were P. & G. Phillips with two Precedent, two Festivity, Audubon, Resplendent, Daydream, Kingbird, and Pinafore.

Best in Show at the North Island was Anitra 1 W-W shown by Peter Ramsay and raised by Jackson of Tasmania. This is a lovely flower and is earlier and probably better than most of the British whites.

There were five entries for the "Bozievich Bowl" requiring nine American-bred cultivars, not more than three of one cultivar, at the South Island National Show held in Dunedin on September 26-27th. First was D. S. Bell with three Beige Beauty, two Daydream, Tangent, Opalescent, Limpkin, and Partridge. This was a very spectacular entry. In second place was Len Chambers with two Velvet Robe, two Chemawa, Coral Ribbon, Pearl Pastel, Tangent, Teal, and Paradox. Third place went to P. & G. Phillips who exhibited three Crystal River, three Sunapee, and three Top Notch. J. O'More with three Eclat, three Blushing Beauty, Urbane, Milestone, and Sunapee, and D. Hayes with three April Clouds, three Bethany and three Pinafore also exhibited in this class.

Owing to increased air fares there were fewer exhibitors from the North Island this year and competition was not so intense. Darwin Hayes won the principal class for eighteen cultivars, three of each, and the Best in Show was Purbeck, shown by Len Chambers.

The season was one of the worst experienced for many years with rain, wind, and hail on several occasions, but there always seem to be good flowers in spite of the elements.

PLAYING BY THE RULES

TOM D. THROCKMORTON, M. D., *Des Moines, Iowa*
(from *The Daffodil Society of Minnesota 1980 Yearbook*)

Hybridizing daffodils has much in common with almost any creative project. The equation is: Time \times Effort = Work! It also demands a great deal of patience — beginning with the first five years from seed to maiden bloom. Other factors are intellectual curiosity, knowledgeable research, ingenuity, and unquestionable optimism. For me, these latter factors have been the real fun of the whole deal.

The miracle of the Virgin Birth has never bothered me very much, when I consider the multiple miracles that surround me daily: the circulation of blood, the healing of wounds; the body defenses against bacterial invaders, etc., etc., Or, the placing of a grain of viable daffodil pollen upon a moist daffodil stigma. The grain germinates in a few hours and makes its way down the pistil, like an eager spermatozoa, to the plant ovary. Here, it finds an unwed ovule and joins it to make a fertilized egg — later to be a daffodil seed. The ovary swells with its pregnant burden, matures, ripens, and in six weeks bursts to cast the fertile seed upon the earth. The rains of late summer drive it into the soil; autumn's leaves cover it, winter snows blanket it with a soft mulch, and the warming moisture of spring-thaws arouse the slumbering embryo. The seed swells; a tiny tactile rootlet thrusts forth into the earth — and a single thin leaf struggles from beneath a pebble or twig upward into the light.

Miracle enough for anyone; but these events are not just haphazard happenings. They serve but to illustrate many of the hybridizers' "rules" — known and unknown. You see, hybridizers don't really learn more about plants, nor do they discover new lines of breeding which lead to fascinating cultivars as yet undreamed of. Not at all! All plant life (and other life) is governed by an enormously complicated set of rules. As we dig deeper into the secrets of a plant, we merely discover new rules that have been there all the time. Thus, the plant breeder must learn the rules, use the rules, and be especially aware when a new rule or set of rules is discovered by him. Let's briefly outline some of these rules that have governed my own efforts to hybridize daffodils.

(1) The time to make a "cross" is on a warm spring morning when the bees are working in the garden. They know! If it is cold and chilly, the stigma remains dry, the pollen indolent.

(2) The pollen is at its best just after the anthers dehisce, turning inside out to a covering of golden powder. (Some pollen may be gray.) If the pollen granules are hard and "sandy," they may be either too old or from an infertile variety.

(3) The stigma, that little three-lobed tip of the pistil, is most receptive when it appears moist. If hard and dry, you may well be going against the rules.

(4) The actual fertilization of the flowers is the easiest part. All that stuff about camel's hair brushes is outside the rules. The rule demands fresh pollen on the receptive stigma in the greatest possible amount. A pair of eyebrow tweezers will pluck a likely anther free from the male parent. (I usually bring an intact bloom to the flower to be crossed.) Then wipe, or actually "pat," the

pollen into the shallow, three-lobed cup of the stigma until it is *full*! If the corona of either bloom is in the way, I cut it away with scissors. Thus, the wedding is accomplished.

(5) I do not bother to de-anther the fertilized bloom. In the first place, the majority of modern daffodils are self-sterile. Secondly, the fresh pollen will soon germinate and get in its licks long before any adventitious bee-shed pollen can make the grade.

(6) Pollen may be preserved almost indefinitely. I often pick just-opening blooms, of the male parent desired, and put them in the refrigerator. When the day of the wedding arrives, I fresh-cut the stem, place it in warm water, and within a few hours the anthers are covered with their coatings of fresh pollen, eager to go to work. I don't bother with dessicators or gelatin capsules — too much work.

(7) Have a goal: Red rims, pink cups on yellow perianths, green eyes, standard type daffodil in miniature form, longer lasting foliage, etc., etc. I hope someone, someday, will hybridize extensively for increased perfume. Many daffodils have lovely and yet quite variable scents.

(8) Don't make your crosses too wide; i.e., a white trumpet on a golden Division 3 variety is not apt to produce a white petaled, golden cupped Division 2 bloom. Such a cross is more apt to produce considerable washed-out junk.

(9) Use the best and most "modern" parents possible, unless it is necessary to go back to older flowers as may be required in certain programs of line-breeding. Beautiful, healthy parents are most apt to beget beautiful healthy children.

(10) It has been my experience that desirable characteristics often skip a generation. Know the grandparents because they may well indicate the path to your goal.

(11) Don't make an important daffodil cross if rain is expected within six hours. A few drops of water, before the pollen germinates, can undo all your plans.

(12) It's well to know something about hormones! When a pollen grain germinates, beginning its trip down the maternal style, a hormone substance is formed which makes the ovary begin to swell — and the bloom probably becomes indifferent to subsequent attempts at pollination. By the same token, the fat, swollen green ovary does not mean fertilization has taken place. It is only a sign that satisfactory pollination has occurred. The actual fertilization of the ovules by the germinated pollen is completely independent of the swollen ovary, that may appear so blatantly pregnant. We've all seen daffodil seed pods the size of ping-pong balls suddenly collapse and not contain a single viable seed.

(13) Use lots of labels. My daffodil clumps are labeled. When a cross is made, I have some markers I obtained from my nurseryman. They are brightly colored (yellow, of course) plastic flags on a three foot stiff wire stem. The name of the pollen parent is printed on the plastic flag with a marking pen, and it is thrust into the ground alongside the pollinated plant. Thus, the crosses are simply marked in a few seconds, and the waving flags are markers that lead to the fertilized blooms weeks later.

(14) I can't spend all of my time in the garden waiting for mature daffodil seed pods to rattle at a touch and give up their burden of seeds. Jean and I "make rounds" some weeks later and encase every swelling seed pod in a little

stockinette chemise. Your local hospital emergency room has rolls of woven tube-gauze: the stuff used to bandage sore fingers. Cut this in eight inch lengths and tie a knot in one end. Pull this over the fat, pregnant bloom and tie it (not too tightly) just below the ovary with a bit of fish line. I carry hip pockets filled with these little woven caps, and carry a spool of fish line in a side pants pocket. (Ladies, of course, can wear slacks.) I slip the gauze caps over the seed pod, pull the end of the string around it, tie it, cut, and presto — the seeds are encased until I am ready to fool with them.

(15) About the first week in July (in my geographical location, where major bloom is in the last of April), I harvest the seed pods. My plastic flags are waving me to the site of the seed pods, which are probably lying on the ground among the supine foliage. The pods from each cross are placed in a plain envelope and the parentage noted on the outside with a marking pen — the seed parent first: Canisp × Panache. These envelopes are placed in a dry spot until I am ready to confront them.

(16) Some Sunday afternoon, a week or so later, a white cloth is spread on the breakfast room table and the seeds are harvested. Each envelope is opened, and the pod stripped away. The number of pods and the number of seeds obtained is noted on the envelope: the seeds are returned to it and the envelope sealed. Thus, we have seeds from each cross in an envelope with the cross noted, the number of pods, and number of seeds recorded. My average over a number of years has been about 18 seeds per pod. This has varied from well over 60 seeds per pod to the solitary shining black result of perhaps half a dozen crosses.

(17) It's probably best to plant the seeds as soon as possible after harvest. Germination is best with immediate planting. I've often used the plastic trays, used by restaurant bus boys, as seed boxes: a few holes in the bottom with a simple drill. The soil: about equal parts peat, sand, and perlite. Sow the seeds, rather thickly, in rows about one inch deep, each cross marked with a heavy aluminum foil folded as a marker and labeled. Water, put in semi-shade under the deck, and sort of forget. When autumn comes, bury the boxes up to the rim; cover with a piece of old carpet, a few stones, and some leaves. Forget for the winter, except for dreaming up some new crosses.

(18) After the frost is gone and daffodil tips are showing, uncover. You may find a little grass-like foliage here and there. Put the seed box in a quiet corner of the garden; water with a little dilute fertilizer; tend the labels, and watch the single leaf of each fertile seed line up with its label.

(19) When autumn comes, repeat the covering of Rule 17. In the second spring, repeat Rule 18. Then, at the end of the second summer, after the foliage has died down, harvest your own tiny bulblets — each about the size of a peanut. Line them out in your daffodil patch; make new labels for each cross; and wait another three years. It's really not so bad — after the first five years, you've a new batch coming along each year.

(20) There is probably no genetic advantage to reciprocal crosses; i.e., nature is usually indifferent as to which variety furnishes the pollen or ovules. Nonetheless, there is a little sub-set of rules that may be helpful here.

(A) If one parent is dramatically larger than the other, use it as the seed parent. For example, the standard × species cross furnishes larger seed with a better chance of survival.

(B) If health or vigor is a factor, let the most vigorous variety be the seed parent. Not necessarily because of Rule #20A, but because the cytoplasm of the seed is furnished *entirely* by the female; the pollen grain carries only its half of the cell nucleus.

(21) Certain cultivars are "shy seeders," as Arbar. Kilworth becomes pregnant just at the thought. Therefore, Kilworth \times Arbar will yield many more seeds than Arbar \times Kilworth — and accomplish the same genetic ends.

(22) Some cultivars are sterile, or almost so, for practical purposes: Scarlet Leader has almost no fertile pollen. Triploid daffodils are usually sterile — fortunately most modern daffodils are tetraploid and most species are diploid; and crosses among these usually work.

I suspect this is more than you really want to know about "hybridizing" — and I haven't even touched on what to expect from and do with the final product. That's another story!

ENGLISH COMMERCIAL DAFFODILS

WILLIAM O. TICKNOR, *Tyner, North Carolina*

It is fairly well-known that more daffodil bulbs are produced in England than in Holland or, for that matter, in all the rest of the world. This is due to an enormous volume of commercial daffodils, as opposed to novelty daffodils, that are grown in England's bulb district around Spalding. Due to a difference of opinion between the English bulb growers and our U. S. Department of Agriculture, almost none of the great quantity of English bulbs came to this country until recently. Some had been "laundered" so to speak by spending a season in Dutch fields. The English bulb hierarchy, led by the Geests, couldn't agree to the American bulb inspection program. The Dutch did.

All things change in time. A group of independent English bulb growers formed a cooperative named Lingarden Limited and hired an able Dutchman, S. B. Out, to be their Managing Director. Lingarden Ltd. sells many bulbs other than daffodils and are approaching fame in their stocks of anemones. They do not sell retail but sell in great quantities to a variety of retail outlets.

Mr. Out is a member of our Society and the following is quoted from a letter from him telling of the business his company does in the United States. Members who are nurserymen and professional bulb sellers might benefit from his letter. The Lingarden Ltd, address is Weston, Spalding, Lincolnshire PE12 6HP England.

"We started out test marketing five years ago, and last year we exported 100 tons of daffodils. This year's orders are for approximately 200 tons, and next year we hope to ship 400 tons. We are the only company in the United Kingdom which holds a license to export to the USA, which means that the USA Inspector, Mr. Santacroce, comes over in the spring to inspect our fields. During the end of July and beginning of August, he is on our premises to inspect each shipment bound for the USA prior to dispatch and issues each consignment with a Certificate of Import."

"We are exporting mainly to the large bulb wholesalers/distributors, that is to say, the type of company who buy 20 tons or more. At present, our customers are spread evenly over the whole of the USA."

"Because we have agreed only to ship to recognized wholesalers, we could not ship smaller quantities to other types of company but if someone in a specific area wanted some of the varieties we deal in we could give them the address of the nearest company to contact."

This actually brings to fruition a program largely started by our own Willis Wheeler. It can have an interesting effect on the daffodil bulb industry.

BEGINNERS CORNER

Winter has arrived, your bulbs are all safely planted, and now you can relax in front of a nice warm fire and dream of all the beautiful daffodils to bloom next spring. This is a good time of year to read—and re-read—old daffodil books. Re-reading something you may have read before is interesting because with your expanded knowledge and interest, you might pay closer attention to something you glossed over before. One of the biggest bargains has to be the offer of 15 numbers of the *Daffodil Journal* for \$5.00. That will keep you in reading material for quite awhile. The *Daffodil Handbook* is well worth having, even though the lists of cultivars may be outdated. *Daffodils in Ireland* is interesting to me because it includes photos of the famous hybridizers as well as articles about them. The RHS *Yearbooks* include daffodil news from around the world. All these books are in the ADS library (for complete list see the June, 1980, *Journal*) or may be purchased from the Executive Director.

While you're sitting in front of the fire, you might think about some "dream" crosses to try next spring. You're not into hybridizing, you say? Why not give it a try? You'll learn to look at your daffodils more closely—noting both good and bad qualities—and you'll develop a better appreciation for some of the new cultivars. You still may not be willing to pay those high prices for new cultivars—but at least you'll have some idea why they're so high! Try breeding your own pink and white triandrus, or cyclamineus, or double! Maybe you'll get lucky! But do follow the advice of experienced hybridizers to use high quality parents. Visualize the perfect—to you—daffodil; then find two parents which have the right qualities, and give it a try. Besides, you'll learn a lot about the development of a daffodil from seed to blooming size—and have a lot of fun in the process.

This is also the time of year to think about attending the ADS convention. You've never been before? Well, there's a first time for everything! Come and meet other people who share your hobby. Some of my best friends are ADS members—from all over the world—whom I met at conventions. There are also workshops and interesting gardens to visit—and when the season is right, there are displays sent from various growers. I'll look for you in California!

Now that your fire's gone out, take those ashes and sprinkle them over the daffodil beds. The daffodils will love the potash!

What do Keats, Otterburn, Green Pearl, and Ireland's Eye have in common? All poeticus hybrids in Division 9, right? Yes, but . . . they also have in common the fact that some members of the Poet Robins feel they don't belong there. We have a reasonably orderly procedure for adding and deleting miniatures from the ADS Approved List (goodbye to The Little Gentleman), but what if a concerned group of careful and experienced Division 9 specialists decide Keats is not really a poet? A thing of beauty perhaps, a joy forever maybe . . . but banished into the utter darkness of Division 12? Keats not a poet!? The mind boggles.

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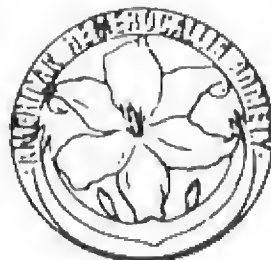
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CALIFORNIA HERE WE COME

MARILYNN J. HOWE, *Culver City, California*

The Southern California Daffodil Society is hosting the ADS Convention at Del Webb's Newporter Inn at 1107 Jamboree Road, Newport Beach, California 92660, on March 26, 27 and 28, 1981.

Newport Beach is located approximately 45 miles south of the Los Angeles International Airport. From the Los Angeles International Airport: the Airport is serviced by all major air carriers. Golden West Airlines offers commuter service to Orange County/Santa Ana Airport from Los Angeles. Ground transportation, including regularly scheduled airport bus service, and rental cars are available from L.A.X. to Orange County/Santa Ana Airport. The hotel offers complimentary limousine service from the Orange County/Santa Ana Airport. Driving time to Newport Beach is approximately 45 minutes on Interstate 405.

Come early and stay late. There is much to see in the many "Countries" of California.

There is the "Mother Lode Country" located in the Central part of the state where such colorful characters as Mark Twain, Black Bart, Horatio Alger, and the infamous bandit Joaquin Murieta roamed during the Gold Rush Days.

The "Wine Country" is situated northeast of San Francisco in Napa and Sanoma Counties. Many wineries offer tours and/or tasting.

See the "Avenue of the Giants" in the Redwood Country—the domain of the world's giant coastal redwood trees located north of Monterey County and extending to the southwestern corner of Oregon.

"Big Sur Country" is the ruggedly beautiful seacoast from Carmel to Lucia. The Santa Lucia Mountains rise abruptly from the ocean, and steep side canyons contain groves of coastal redwoods. Its spectacular scenery has been an inspiration for artists and writers.

The "Desert Country" is in the southeastern part of California and the landscape will be a carpet of wild flowers from late winter to early spring.

The entries for the National Show will be accepted from 4:00 p.m. Wednesday, March 25, until 10:00 a.m., March 26. Jay Pengra, Show Chairman, urges all growers with flowers in bloom to bring them and enter them in the show.

Friday's symposium will cover many current topics of interest for both growers and hybridizers.

On Saturday's bus tour, we will visit Rogers Gardens; this spectacular nursery and Botanical Garden features magnificent hanging baskets of flowering plants, garden planted roof-tops, 7½ acres of colorful blooms and a home accessory shop reflecting California's relaxed lifestyle.

Next stop is a tour of the U.C.I. Arboretum in Irvine. Besides the daffodils, there is a large collection of California native plants and a collection of South African bulbous plants.

We will then travel to San Juan Capistrano, along the route of the Padres for lunch. Following lunch, enjoy a guided tour of the Mission of the Swallows, also known as the "Jewel of the Missions."

We will drive along the scenic coastal route through Dana Point and Laguna Beach to Corona Del Mar for a visit to the beautiful Sherman Foundation Gardens.

Please come west next spring and join us in Newport Beach for the 1981 convention.

DRYING MINIATURE DAFFODILS

QUENTIN E. ERLANDSON, *Baltimore, Maryland*

"It's a long, long time from May to December" is a familiar tune. It is even longer from one daffodil blooming season to the next. There is no need to "wait 'til next year." If you would like to enjoy your favorite daffodils from one season to the next, there is a way I have found to be quite satisfactory—drying.

First a disclaimer— I am not an expert. I have had limited experience drying flowers. I have dried only miniature daffodils and have used only one method, silica gel. However, based on comments made by house guests during a snow storm in January, or on a hot, humid day in August, our dried miniatures displayed on our fireplace mantel have been a huge success. So if I can do it, anyone can.

The miniature daffodil blooming season is quite long — at least it is for me. It was especially long this year. Spring was cool and wet. My first miniature bloomed the 3rd of March and the last flower hung in there until May. It's nice to have a long season except for the disadvantage at "show time." In a long season, the number of miniature species in their prime at the same time is limited; it is therefore difficult to find enough varieties of best quality to enter all the classes in which you hope to be a serious contender. On the other hand, the time periods before and after the show(s) present an opportunity to make good use of your better flowers, possibly blue ribbon specimens. Dry them.

The process I use is simple. I use a FLOWER DRI kit that is made and marketed by Plantabbs Corp., Timonium, Md. The kit includes an airtight metal container, 1½ lbs. of silica gel, green florist wire, green florist tape, and a book of instructions. To complete your needs, have available an air-tight glass container you intend to use for the finished product.

All set:

Step 1. Cut *fresh* flowers that have just opened. This is very important. Flowers must be fresh and not wet with dew. Fresh flowers retain their color and hold up better.

2. Using the air-tight metal container, remove all but a ½ inch or so layer of silica gel from the container.

3. Cut the stems to a length of 2 inches or less.

4. Lay the flowers face up on the silica gel in the air-tight container. Carefully adjust the flowers and the gel so the perianth and corona are not distorted. This is important, for the flower will set in the same shape that it rests in the drying agent. Using a small spoon, add silica gel to the flowers, making sure there are no air spaces. Be sure to add the gel *inside* the corona as in the case of the *triandrus albus*, for example. Continue to add silica gel until all the flowers are completely covered. The mound of silica gel should be stable enough so that small movements of the container will not expose a flower.

5. The kit will hold six to eight miniatures at one time with about ½ inch of drying agent covering all the flowers.

6. Place the cover back on the metal container. Normally the lid is tight enough; however, I add a tape around the lid to insure a good seal.

7. Wait two days. I have found this to be just about the right time for miniatures. Three days, I find, is a bit long; the color is not as good and the flower becomes a little brittle (a perianth segment may break off).

8. Remove the cover and carefully remove the silica gel covering the flowers. Tilting the container is one method; using a brush helps. The flower is now dry and also brittle, so be careful.

Note: Silica gel can be re-used; do not throw it away. The kit has instructions for removing moisture from the agent when necessary.

9. Now comes the hard part, especially for someone like me with ten thumbs. Using three to five inches of the fine florist green wire, thread the wire up through the stem as far as possible. Using the green florist tape (I cut it into thin strips about $\frac{1}{4}$ inch wide for miniatures), wrap the tape in spiral fashion around the wire and stem starting from the bottom and working toward the flower. Continue with this until you reach the base of the flower, or at least as far as you think is necessary to have a stable flower that will not break off with the slightest jar. Some varieties are easier than others. If the stem is very thin, simply tape the wire to the stem, side by side. Either way, the tape and wire give the dried flower a strong and firm stem that will last.

Note: Inserting the wire before drying may or may not be helpful. First the wire should be longer than is convenient in the drying container.

Secondly, the flower after drying may be too brittle and break off at the end of the wire.

10. Using the air-tight glass display container, arrange the miniatures to suit yourself (cut the wire stems that are too long). I suggest you emphasize the flowers in such a way that no one will notice the stems.

11. Add three to five tablespoons of silica gel to the display container before sealing. This will insure a dry atmosphere even on the most humid summer days. Humidity is the worst enemy of dried flowers. In fact it's fatal. The dried flower wilts in just a day or two.

12. Enjoy the finished product.



Left, arranging the dried flowers; right, the finished product
(Erlandson photos)

The glass display container may be difficult to find. We happened to have one at the time my daughter gave me the kit for Christmas. It has worked well, having a pin holder attached to the lid. After the miniatures are in place, the added silica gel not only keeps the flowers dry and natural looking, but also hides the pin holder and makes a fine white base for the arrangement.

The whole process is really quite simple. I know there are other drying agents and other drying procedures that are said to be quite satisfactory, but I have not used them. I also know there are other flowers that dry successfully, but I have not yet tried them. I have yet to dry a standard-size daffodil although I intended to do so this past season. Maybe next year.

I can say without reservation, however, that miniature daffodils can be dried with great success! Get the materials, follow the directions, pick your miniatures at the right time, and have fun. I have yet to find a miniature that does not dry well.

U. S. REGISTRATIONS IN 1980

Reported by MRS. KENNETH B. ANDERSON, Registration Chairman

American registrants of new daffodils and their registrations:

Evans, Murray W.; Corbett, Oregon: Barbie Doll, Dreamboat, Evergold, Porcelain, Sugar Loaf, Unity.

Gould, William, Jr.; Laurel, Maryland: Watercolor.

Grier, Helen; Yorba Linda, California: Merry Child.

Mitsch, Grant; Canby, Oregon: Autumn Gold, Wind Chimes.

Pannill, William; Martinsville, Virginia: Accord, Century, Crystal Blanc, Demitasse, Diablo, Free Spirit, Gallery, Keepsake, Key Largo, Newport, Our Tempie, Oz, Party Doll, Portfolio, Sailboat, Snow Drift, Taco, Tuckahoe.

Robertson, Eve; Taylors, South Carolina: Elegant Lady, Limey Circle.

REGISTRATIONS

Measurements and data given are: division; color code; seedling number; seed and pollen parents; diameter of flower (F.); length of perianth segments (P. segs.), color; length of corona (C. lgth.), color; diameter of corona (C. diam.); bloom season; height of flower (H.)



- ACCORD** (Pannill) 2 Y-WWY; PL 66B; (Bethany × Rus Holland) F. 97 mm; P. segs. 40 mm, yellow; C. lgth. 36 mm, white with yellow rim; C. diam. 49 mm; midseason; H. 39 cm.
- AUTUMN GOLD** (Mitsch) 2Y-Y; D 80/13; (Quick Step × Daydream) F. 80 mm; P. segs. 33 mm, deep yellow; C. lgth. 20 mm, deep yellow; C. diam. 28 mm; late; H. 49 cm.
- BARBIE DOLL** (Evans) 2 W-WWP; 0-5; (Kewpie × Chiquita); F. 80 mm; P. segs. 33 mm, white; C. lgth. 13 mm, white with pink margin; C. diam. 30 mm; late midseason; H. 35 cm.
- CENTURY** (Pannill) 2Y-WWY; (Camelot × Daydream); F. 108 mm; P. segs. 41 mm, yellow; C. lgth. 33 mm, white with yellow rim; C. diam. 45 mm; midseason; H. 42 cm.
- CRYSTAL BLANC** (Pannill) 2W-GWW; 66/60/L; (Easter Moon × Pristine) F. 108 mm; P. segs. 38 mm, white; C. lgth. 17 mm, white; C. diam. 34 mm; midseason; H. 41 cm.
- DEMITASSE** (Pannill) 6W-Y; G 20 C; (Jenny × *N. jonquilla*); F. 50 mm; P. segs. 22 mm, white; C. lgth. 10 mm, yellow; C. diam. 9 mm; late midseason; H. 18 cm.
- DIABLO** (Pannill) 2W-GYR; 64/106; (Roimond × Corsair) F. 98 mm; P. segs. 36 mm, white; C. lgth. 15 mm, yellow with green eye and red rim; C. diam. 38 mm; late midseason; H. 38 cm.
- DREAMBOAT** (Evans) 2W-YYO; N-36/3; (Marshfire × Hotspur) F. 95 mm; P. segs. 35 mm, white; C. lgth. 15 mm, yellow with orange bar; C. diam. 40 mm; midseason; H. 39 cm.
- ELEGANT LADY** (Robertson) 1W-Y; 199 #33; [(Corinth × Kanchenjunga) × Empress of Ireland] F. 110 mm; P. segs. 45 mm, white; C. lgth. 46 mm, lemon yellow; C. diam. 44 mm; early midseason; H. 44 cm.
- EVERGOLD** (Evans) 1Y-Y; 0-12; (Enmore × Fiji) F. 100 mm; P. segs. 44 mm, yellow; C. lgth. 47 mm, yellow; C. diam. 40 mm; midseason; H. 40 cm.
- FREE SPIRIT** (Pannill) 2W-W; 66/43; (Verona × Stainless) F. 100 mm; P. segs. 40 mm, white; C. lgth. 16 mm, white; C. diam. 35 mm; late midseason; H. 40 cm.
- GALLERY** (Pannill) 2W-W; 62/31A; (Vigil × Empress of Ireland) F. 120 mm; P. segs. 48 mm, white; C. lgth. 46 mm, white; C. diam. 40 mm; midseason; H. 43 cm.
- KEEPSAKE** (Pannill) 2W-P; PK 9; (Green Island × Leonaine) F. 110 mm; P. segs. 45 mm, white; C. lgth. 29 mm, pink; C. diam. 36 mm; midseason; H. 40 cm.
- KEY LARGO** (Pannill) 2Y-Y; D 23/4; (Kingscourt × Royal Oak) F. 104 mm; P. segs. 41 mm, yellow; C. lgth. 38 mm, yellow; C. diam. 40 mm; midseason; H. 42 cm.
- LIMEY CIRCLE** (Robertson) 3W-WWY; 192A (Carnmoon × Green Island) F. 103 mm; P. segs. 46 mm, white; C. lgth. 15 mm, white with limey yellow frill; C. diam. 40 mm; midseason; H. 48 cm.
- MERRY CHILD** (Grier) 8Y-Y; 63/2/68; (Helios, syn. Abundance, × *N. jonquilla*) F. 45 mm; P. segs. 17 mm; light canary yellow; C. lgth. 7 mm, deep yellow to light orange; C. diam. 16 mm; early midseason; H. 37 cm.
- NEWPORT** (Pannill) 2W-YOY; 65/67; [(Limerick × Broughshane) × Avenger] F. 98 mm; P. segs. 40 mm, white; C. lgth. 20 mm, yellow, orange, yellow; C. diam. 21 mm; late midseason; H. 42 cm.

- OUR TEMPIE (Pannill) 3W-YYO; 64/84/2 (Merlin x Hotspur) F. 90 mm; P. segs. 38 mm, white; C. lgth. 11 mm, yellow with red rim; C. diam. 35 mm; midseason; H. 42 cm.
- OZ (Pannill) 6Y-Y; G 20 A; (Jenny x *N. jonquilla*) F. 50 mm; P. segs. 20 mm, yellow; C. lgth. 15 mm, yellow; C. diam. 10 mm; late midseason; H. 18 cm.
- PARTY DOLL (Pannill) 4W-P; 67/26; [(Wild Rose x Interim) x Magic] F. 80 mm; P. segs. white; corona pink; late midseason.
- PORCELAIN (Evans) 2W-W; 0-20 (Pristine x Moyard) F. 110 mm; P. segs. 45 mm, white; C. lgth. 33 mm, white; C. diam. 50 mm; late midseason; H. 41 cm.
- PORTFOLIO (Pannill) 1W-W; 64/119 U; (Vigil x Empress of Ireland) P. segs. 45 mm, white; C. lgth. 49 mm; white; C. diam. 45 mm; H. 40 cm.
- SAILBOAT (Pannill) 7W-W; G K5A; (Frostkist x *N. jonquilla*) F. 60 mm; P. segs. 28 mm, white; C. lgth. 18 mm, white; C. diam. 18 mm; late midseason; H. 35 cm.
- SNOW DRIFT (Pannill) 2W-W; 62/12; (Arctic Doric x Vigil) F. 110 mm; P. segs. 44 mm, white; C. lgth. 35 mm, white; C. diam. 36 mm; midseason; H. 44 cm.
- SUGAR LOAF (Evans) 4W-P; L-43/5; (Pink Chiffon x Accent) F. 105 mm; P. segs. 44 mm, white; corona, pink and white petals; midseason; H. 42 cm.
- TACO (Pannill) 3W-R; 62/57; (Kilworth x Avenger) F. 110 mm; P. segs. 46 mm, white; C. lgth. 15 mm, red; C. diam. 33 mm; midseason; H. 43 cm.
- TUCKAHOE (Pannill) 3W-GYR; 64/36C; (Corofin x Hotspur) F. 90 mm; P. segs. 40 mm, white; C. lgth. 13 mm, green eye, yellow, red band; C. diam. 32 mm; late midseason; H. 41 cm.
- UNITY (Evans) 1Y-P; N-91 [(Daydream x Lunar Sea) x Rima] F. 105 mm; P. segs. 45 mm, yellow; C. lgth. 47 mm, pink; C. diam. 40 mm; early midseason; H. 38 cm.
- WATERCOLOR (Gould) 2W-P; 69-6-9-1; (Easter Moon x Rose Royale) F. 110 mm; P. segs. 46 mm, white; C. lgth. 29 mm, pink; C. diam. 25 mm; early midseason; H. 41 cm.
- WIND CHIMES (Mitsch) 7YW-P; D 80/17; (Quickstep x Daydream) F. 81 mm; P. segs. 38 mm, lemon yellow with white halo; C. lgth. 24 mm; pinkish buff; C. diam. 31 mm; late; H. 53 cm.

DAFFODIL YEARBOOK 1942

FRANCES ARMSTRONG, Covington, Virginia

(from the Newsletter of the Middle Atlantic Region, February, 1980)

A year or so ago, my mother delved into her crowded bookshelves and presented me with a copy of the *Daffodil Year Book 1942*, a joint issue of the Royal Horticultural Society and the American Horticultural Society.

I was amazed that she had this hidden treasure and she seemed equally amazed that I was so pleased to have it, and so very interested in its contents.

Its 96 pages enclosed in a rather plain board cover was priced \$0.75. There were numerous black and white photographs and four pages of advertisements, over three-fourths of them American, which included one from Edwin C. Powell, Rockville, Maryland, and another from the Hodge Podge Shop in Gloucester, Virginia.

Robert Moncure discussed choice daffodils found in his Virginia garden while S. Stillman Berry, Kenyon L. Reynolds, and Lena M. Lothrop wrote about their experiences growing daffodils in California.

There were articles from William Jackson in Tasmania and C.G. Hayes in New Zealand as well as reports of shows there and in Pasadena.

Guy Wilson contributed three articles: one described a visit with the Richardsons at Prospect House in Waterford, another concerned his own daffodils mentioning a fine newly registered cultivar named Chinese White for which he expressed high hopes, the third was of correspondence from the United States with Professor Sidney B. Mitchell, Eliot Rogers, Joseph Urmston, and Frank Reinelt of California, and with John C. Wister of Philadelphia. D. Blanchard discussed his seedlings in Dorset and A. Cowen instructed on growing daffodils in bowls. But the real highlight of the *Daffodil Year Book 1942* was the account of the Royal Horticultural Society's Show held April 17 and 18, 1941, in Old Horticulture Hall, Vincent Square, London.

Daffodils that cold and frosty spring were a week to ten days later than usual and, in view of that and the reduced traveling facilities due to the war, not many entries were expected. However, weather at the last minute improved and the response exceeded all expectations. There were eight commercial groups and 41 competitors made 484 entries.

Most of the exhibits had been staged on Wednesday, April 16, when "an enemy aircraft made a very heavy and sustained attack on London" lasting the entire night. Fortunately the Old Hall with its glass roof was intact although two incendiary bombs fell on the New Hall just a few yards away. The account comments that "those exhibitors who spent the night in London are not likely to forget the 1941 Daffodil Show."

Messrs. Barr & Sons of London and Mr. J.L. Richardson, Prospect House, Waterford, Eire, were awarded gold medals for their commercial displays. The Barr display included Beersheba, Havelock, Bodilly, John Evelyn, Firetail, Beryl, and Little Witch among others, while Red Goblet in the Richardson display received an Award of Merit. Other of the Richardson outstanding cultivars were Carbineer, Crocus, Porthilly, Rustom Pasha, Coverack Perfection, Blarney, Rose of Tralee, and Pepys.

For the third year in succession Mr. Richardson won the Engleheart Cup (one stem each of twelve cultivars bred and raised by the exhibitor) with Buncrana, Krakatoa, Kingscourt, Narvik, Glendalough, Bahram, Malta, Greenore, Matapan, Killaloe, and two unnamed seedlings. Mr. Guy L. Wislon was second with a fine bloom of Chinese White, Samite, Overseer, Armada, Rouge, Larne, Slemish, and five seedlings.

The Banksian Medal offered for the best bloom shown in the competition classes was awarded to Mr. Richardson for a flower of Matapan. Other flowers mentioned as competitors were Aranjuez, Leinster, Ludlow, Kingscourt, and Samite. A quick perusal of the open classes finds Mr. Richardson the winner in most of them. All collections called for three stems each of six to twelve cultivars. Class two, for instance, asked three stems each of twelve trumpet varieties. What a tremendous number of daffodils he must have staged!

The amateur classes were not well filled as several well known amateurs were unable to exhibit due to "shortage of staff."

There were also daffodil shows at Spaulding that spring and at Lymington. The British do "carry on" no matter what the circumstances.

ROBIN ROUND-UP

RICHARD EZELL, *Chambersburg, Pennsylvania*

Why in the ever-lovin' blue-eyed world call an exchange of letters a "round robin"? The letters do travel a circular route, so "round" has some sense to it, but "robin"? A reference to air mail? No, the answer (which Bill Ticknor put me onto) predates air mail by several hundred years: to avoid the harsh punishment customarily meted out by ships' captains for even the mildest dissension, French sailors took to writing down their grievances and signing their names to them in the form of a circle, so that the captain couldn't tell who signed first—who might be singled out as *ringleader*. The circular group of signatures was called a "*ruban rond*," in English, "round ribbon." English sailors soon picked up the practice, calling it in mixed French and English, "round *ruban*," which quickly became corrupted to "round robin." The device was adopted by landlubbers and became well known all during the 18th century in both England and her colonies. John Hancock was acclaimed a brave man indeed for *not* insisting on the round robin form in a famous instance where it might have been called for.

When I agreed to take on the task of ADS Round Robin Chairman, I had never so much as laid eyes upon a flight of Robins. I have by this time perused a goodly number of them, and let me assure those of you who may be as unfamiliar with them as I was that they are FUN. I am certain many of you would find participating in one (or more) both enjoyable and informative. To take part will not demand much of you in time or money, or even writing ability. Some of the letters are long, detailed, and filled with the fruits of experience and observation; others are brief, chatty, and altogether lightweight. But all are enjoyed by fellow Robin members. (An enthusiastic account of Robin activity is given by "Tag" Bourne on pages 104-105 of the December 1978 *Journal*.)

The ADS currently has two types of Robins, general ones, and those devoted to special interests, such as poeticus daffodils and hybridizing. The latter type seems to fly faster, get lost least, and to be crammed with the most intriguing information. I would like to begin new specialty Robins. One is in fact being organized at this moment, a Robin that will be devoted to the growing interest in daffodils of the tazetta clan. Bill Welch, whose recent *Journal* articles have indicated his knowledge of and devotion to this group of daffodils, will be sharing his experience and enthusiasm with Robin members anywhere, experienced or not, but joined by an interest in tazettas.

Now, how about a Robin devoted to cyclamineus types? jonquils? triandrus? With interest in hybridizing continuing to increase, it may well be time to begin a second hybridizers' Robin. Adding an English member to the Hybridizers' Robin has proved so successful, that an International Robin with correspondents in six or eight corners of the daffodil world might be exciting to try. The extra travel time of the mails would not be a bar, although the postage costs of good, fat Robin packets could prove prohibitive for some of us.

We are, I think, on the brink of takeoff with a new Robin composed of equal numbers of experienced growers with many years of accumulated expertise and of beginners, or at any rate, novice daffodil growers. This one should provide its members with a nice mix of question, answer, and comment, with it not impossible for the veteran growers to learn some things from the newcomers, as well as the other way round.

Interested in one or more of the possibilities I've just outlined? Please write to me at 1341 Lincoln Way East, Chambersburg, PA 17201. Questions? Suggestions for other Robin possibilities or inquiries about the existing Robins? Same address.

HOOP PETTICOATS OUTDOORS IN MINNESOTA

MARYANN COLLINS, *Apple Valley, Minnesota*

(from *Tete-a-Tete, Newsletter of the Daffodil Society of Minnesota*,
September, 1980.)

Narcissus bulbocodium is a species daffodil fondly dubbed the Hoop Petticoat daffodil because of its unusual shape: a wide and flaring corona and narrow, linear perianth segments, which suggest an old-fashioned hoop petticoat.

Rumor has it that Hoop Petticoat Daffodils are not hardy in Minnesota and I was about to believe it after planting the bulbs in fall and having nothing come up in spring. Three years ago, I ordered bulbs of *N. bulbocodium* and some of its varieties from an English firm specializing in small bulbs. The order arrived very late, after the ground was solidly frozen. I potted the bulbs and grew (not forced) them under fluorescent lights in my cold basement. They grew green leaves almost immediately and, when spring was about here, they bloomed.

As spring turned into summer, I transferred all the pots of bulbs outdoors and tried to get the bulbs to ripen their foliage and become dormant. The *N. bulbocodiums* resisted this process, and when all the other bulbs were ripened, the *N. bulbocodiums* still had green leaves.

Not long on patience, I summarily planted each pot of *N. bulbocodium*, as is, into a peaty bed that I kid myself into thinking is acid just because I mulch it with pine needles. The *N. bulbocodium* leaves stayed green until August. After a brief disappearance, they again began to grow in September. After the ground froze, I covered the bed with evergreen boughs (because I grow heaths and heathers in it). After Christmas, I plopped our Christmas tree—whole and not cut into boughs—on top of the bed because I feared the heaths and heathers might not be reliably hardy here.

Come spring, the *N. bulbocodium* foliage was a bit winter burned, but still green. Rather late, after most other species were done, a single bloom showed upon one clump. The next spring, after similar winter covering, that clump put forth two blooms and two other varieties each raised up a single petticoat.

My hypothesis is that these bulbs want to begin growing right away in the fall and our early winter prevents them from doing that. Perhaps they need to grow roots and leaves before winter sets in. Lack of patience and a fortuitous late delivery seem to have resulted in what I had not been able to achieve playing by the rules—Hoop Petticoats blooming outdoors in Minnesota.

Now I want to re-run the whole procedure, but this time plant some outdoors in the "acid" bed in fall when received as a control group and some in pots under lights as before.

BITS AND PIECES

(from the *Middle Atlantic Region Newsletter*, September, 1980)

Every year during the first week in April, I take my dear 89-year-old friend, Gladys Musgrave, a bunch of daffodils. This is a very special bunch composed of Louise de Coligny, Trevithian, and Grand Monarque. Perhaps there are prettier flowers in the yard, but these three cultivars are divinely fragrant. You see, Gladys has been blind about twenty years. She is always so bright and cheerful. It makes me feel humble.

Gladys always says, "These daffodils are beautiful!"

When Lew Wallace wasn't writing *Ben Hur*, he created one of my favorite quotes: "Beauty is altogether in the eye of the beholder."

—BETTY DARDEN, *Newsoms, Virginia*

This spring I heard some comments which I shall pass along. It was the consensus that two additional requirements should be made of daffodil judges.

1. Judges should be required to exhibit periodically. Some judges never bother to exhibit once they have been accredited. This makes sense to me. It's easy to slip into an academic approach—to forget the hardships that the exhibitor undergoes.

2. Judges should be required to add some of the newer cultivars to their daffodil collections every year. You have to grow a flower in order to become familiar with its habits and characteristics.

I may have opened a hornet's nest, but it would be interesting to hear comments from members of the Middle Atlantic Region. Let the Regional Vice President know your thoughts on the subject.

—MARY GWYNN ERLANDSON, *Baltimore Maryland*

DOCTOR JAMES PARKINSON



Parkinson is a familiar name in daffodil history. You may recall that the apothecary John Parkinson wrote in 1629 his *Paradisi in Sole, Paradisus Terrestris* in which nearly a hundred kinds of narcissus are figured or described.

Now 350 years later comes the daffodil Dr. James Parkinson, named for another English apothecary/surgeon whose "Essay on the Shaking Palsy," published in 1817, described the disease which now bears his name in such clear and exact terms that it has never been bettered. A medical pioneer, he was also a

controversial social reformer, eminent geologist, and keen observer of all around him.

Whether the two Parkinsons are related is a matter for conjecture—and further research. (Photo courtesy of Matthew Zandbergen.)

YOU'VE COME A LONG WAY, BABY

DOROTHY SHEPARD, *Dallas, Texas*

In the spring of 1972, new to Princeton with a baby due in May, I wanted to share my enjoyment of daffodils with someone. Not being able to find a spring flower show nearby, I turned to the ADS membership roster in hopes of finding a kindred spirit. And there was listed Carol McNamara, not only a member but a judge and regional director, living not twenty minutes from me! She invited me over to see her flowers and came to see mine. It turned out that she too was new to the area, recently having moved from Long Island. Then the daffodil season ended, we had a third boy, and Carol started a mail order horticultural book business; daffodils were far from the center of our thoughts.

Yet the following winter Carol called wondering if I might be willing to put some daffodils around town to drum up some interest in having a daffodil show. Of course I was. David Steadman, then Director of the Princeton University Art Museum, agreed for us to put some in the museum over Easter weekend. Carol then invited all the ADS members in New Jersey to contribute to that effort. They were to meet at my house, a good central location, bringing their daffodils. It was a good spring for daffodils and a beautiful day so we ended up with four or five ADS members, some garden club members, and quantities of daffodils. Out of that meeting grew the "Friends of Daffodils," a group committed to put on a daffodil show the next spring.

Carol, her husband Dan, and I spent hours arranging those daffodils for the museum display. We had a wagonful of arrangements when we finished. The museum director blanched when he saw how many we had; he had expected one arrangement for the desk. So too in truth had we: we hadn't known what to expect. The arrangement job was the toughest I've ever faced, showing the beauty of each bloom in containers harmonious with both the flowers and the museum situation. Once at the museum the challenge became keeping them fresh throughout the whole weekend, a challenge which Carol and I couldn't have handled without the museum docents' help.

The "Friends of Daffodils" functioned with an operating committee, Carol, Jerry Reed, Diana Olcott, Dick Kersten, and me. Diana agreed to be the chairman of the show the next spring. That first show in the spring of 1974, although not an official ADS one, turned out very well. There were a respectable number of entries, the largest class being the "great unknowns," those daffodils whose names were not known.

A segment of the New Jersey daffodil fanciers felt that the name, "Friends of Daffodils," didn't have the stature needed by the group as sponsor of an annual daffodil show. George Lee wrote that the name; New Jersey Daffodil Society, was available for use so it was adopted in time for the 1975 show. George came down to speak to the group for our first meeting under that name. Still functioning under an operating committee but with local garden clubs joining in the sponsorship, the 1975 show, an official ADS one, was held. Spring was late coming so classes in other flowering bulbs and spring branches were added. Mike Magut came down to the show, bringing enough blooms to fill out the show and win the Silver Ribbon.

By the 1976 show, the New Jersey Daffodil Society had decided it needed real officers; Adra Fairman was elected president, Sallie Winmill, vice-president, Bobbie Kafes, secretary, and Dick Kersten continued as treasurer,

a job he had taken on from the very beginning. That year the ADS convention was held in Philadelphia which had two good results for us. Our members learned much from its meetings and from close contact with a national show. Additionally, convention-goers could judge for and/or enter our show. That spring was too hot for most local growers unless they had a good way to hold flowers they'd picked early, and most didn't. Out-of-town entrants were the backbone of the show. The 1975 and 1976 shows pointed out the importance of careful choice of show dates.

The next organizational step for the New Jersey Daffodil Society was to write a constitution and by-laws. They were ready for approval at the annual meeting in the fall of 1976.

With members living all over the state of New Jersey, an important goal of the group has been getting it to function statewide. Accordingly, meetings had been held in several parts of the state. The current president, Mrs. Bassett Winmill, is from Rumson. As yet no other New Jersey town has been willing and able to take on the show itself, although that seems to be the next logical step. Perhaps the best known daffodil grower in New Jersey, Libbe Capen, is an example of one who lives at a distance from the original nucleus of the New Jersey Daffodil Society yet who has shared her garden, her bulbs, and her knowledge with the group through the years.

The 1980 show had 452 entries (648 blooms) and awarded six ADS ribbons plus the National Council Creativity Award and the Princeton Savings and Loan Association Perpetual Trophy for best bloom in show. It was held with the aid of twelve New Jersey garden clubs and a budget of \$950.00. Compare those figures to the ones for that first official show five years earlier: 356 horticulture exhibits, four ribbons awarded, two sponsoring clubs, and a budget of \$460.00. The New Jersey Daffodil Society has grown from a membership of 30 to 95 members. One member is a regional vice-president and one a regional director. Some are judges or student judges; some give talks about daffodils.

I would like to think that the most fruitful results of these efforts are seen in the gardens of New Jersey where better cultivars of daffodils are grown better. Moving to New Jersey this year, I wouldn't have to drive twenty minutes to talk daffodils with an ADS member.

KNOW THE LITTLE JONQUILS

ELIZABETH T. CAPEN, Boonton, New Jersey

Our new president, as she took office, emphasized that all of us should study our flowers precisely; look at them with an analytical eye; above all, first grow them to know them well. Marie has certainly proven she has practiced what she preaches, evidenced by her many works of daffodil art.

I suggest that one group that needs study is that of the little jonquils, both species and hybrid, all closely related, yet each an individual.

Of the several jonquil species commonly grown and shown, only two consistently cause trouble in identification: *N. rupicola* and *N. juncifolius*. (The fact that botanists have been playing botanical games with these two for many decades does not alter their individuality, which is all that interests the gardener or judge.) Other jonquil species frequently seen — tall *jonquilla*,

little white *watieri*, tiny clustered *scaberulus*, and a few rarer ones—are readily identified.

The confusion in differentiating these two popular species can be traced to two causes: the method of supply, and the variation within the species.

The method of supply must be kept in mind by anyone buying daffodil species. Unless you know your supplier to be an expert, who knows and grows his product — and fortunately, we have had such — take it for granted that your bulbs will come by the method explained to my husband by a Spaniard on horseback in the mountains behind Grenada, as I was photographing some *calcicola* we had discovered. Jack's Spanish may leave something to be desired, but the caballero's sign language was eloquent. "You dig them in bloom; you tear off the tops; you throw the bulbs in a bag."

Such bulbs were sold not long ago by wholesalers at \$3/100. We have bought a great many hundreds through the years from the major wholesaler. Results would follow a pattern. First year, there would be a scattering of leaves; second year, there would be more leaves, perhaps a flower, quite likely "minimus," regardless of what had been ordered. Another two years might find a few more "minimus" — even one time a *N. watieri* — all out of 100 "*rupicola*." Yet, recently, hoping to replenish our patches of little species jonquils, and ordering several, all that came were *rupicola*, regardless of label. So has the "method of supply" confused general understanding of these two little species.

As an aside, does this remind you that we should reactivate the ADS Commercial Committee? Is there any important flower with less liaison among its Source, the Public, and the Group, speaking for the flower? Should the ADS not recognize its obligation to the daffodil growing public?

But let us return to our topic: the confusion in identification of these two little wild jonquils. The second cause for confusion seems to be that there is so much variation within the species, especially *rupicola*, that some students and judges attempt to divide *N. rupicola* in two.

N. rupicola is consistent in coming rather early for a jonquil and having a solitary bloom, almost sessile on a 3-4 inch stem. Its yellow, globular cup is six-lobed.

The problem comes from its chief variation—the width of the perianth. Think of it as a dieter, who adds and subtracts at the waist, while maintaining the same height, color, and general look. Now most Americans favor the thin look, but remember that *rupicola* comes from the Latin countries, where "fatter is better." Each form is "correct and true to name," so it is up to the judge to decide between examples of the different types, if put to the test. As a judge, I should lean to the fatter, that being closer to the currently favored wide-fat perianth, but thin or fat, all those early little one-to-a-stem yellow jonquils are *rupicola*.

N. juncifolius comes much later in the season. After *rupicola* is remembered only by its maturing seedpods, little graceful sprays pop up among foliage even grassier than *rupicola*'s. While time of bloom and the solitary versus the cluster style will separate these two for a gardener, a judge, seeing flowers from several seasons at a time, should remember that *juncifolius* has a small pedicel, even if improperly solitary.

I recall some years ago, horticulturalist (and one time ADS secretary) Estelle Sharp, defined a successful miniature as "one that reproduces itself on your place." I use her yardstick and found these two to qualify here in Zone 5, persisting for many decades. Further, both self-pollinate, producing seed to flower in but a few years. I do urge all fanciers to grow their own.

On the other hand, other well-known species, such as *calicicola* and *scaberulus*, yellows, and white *watieri* are hardy here for only a few years, while the favorite of the South, *jonquilla*, and other reasonably common ones rarely come up even once and can hardly be called "little," in the usual sense of being small and short.

Of the many jonquil hybrids, we have found eight to be little and tough. They have persisted and increased here, although of course not by seed as Estelle was discussing. The source of hybrids is very important, as a small mistake can be multiplied. Of the eight, five came directly from the hybridizer, Alec Gray, bought more than once. Grant Mitsch, whose meticulousness in providing true-to-name bulbs is recognized by all, added two. The eighth was Clare, introduced by Mr. Gray after he retired.

Before listing the identifying features of our eight strongest, I thought it would be interesting to identify their pedigrees, kindness of the printout provided by Dr. Tom Throckmorton.

And so we learn that of the eight, six had *rupicola* as a pod parent. The other two had *juncifolius* on one side or the other. Then, we found six were sired by *poeticus*. "Ay; there's the rub." Did not *poeticus* emphasize hardiness genes and add vigor to the progeny of the two most hardy jonquils? Perhaps, but perhaps we can explore this line too far, or someone will raise the question of how two true species, bearing solitary flowers, can produce two or three hybrids, bearing two or three flowers per scape; sic *rupicola* × *poeticus*. This is a situation devoutly to be ignored, or conscience will make cowards of us all.

Here are the eight completely hardy, healthy, individual, prolific, little jonquil hybrids that we wholeheartedly recommend for show, or better yet, for the many places where a cluster of small spring beauty can fill a gardening need.

- SUNDIAL — short; usually two to a stem; smallest individual flower of the group; earliest and brightest; petals rounded; sepals clear yellow; bowl cup; center green; 6 anthers show, 3 larger than others.
- SUN DISC — a little taller and later than above with flatter perianth; sepals overlap and reflex, petals do not touch; whole flower clear corn yellow with green center. Most distinctive feature is its shallow fluted cup.
- BOBBY SOXER — next to largest of group, always two to a stem; sepals rounded, reflexed, but not touching; sharp apiculation; petals narrow, often irregular in size and shape; cup flaring, irregular edge, orange rim.
- CLARE — the newest of this group, hybridized by Alec Gray. One to a stem; one of the tallest; palest perianth of all; petals slightly fluted; cup corn yellow; slightly smaller than Sun Dial. Only three visible yellow anthers contrast with green center.
- STAFFORD — a precisely beautiful jonquil, one to a stem mid-season. Perianth, pale yellow, slightly reflexed. Its almost flat, clear yellow cup has occasionally a strong green center and one in a thousand a tiny rim of orange. (See *Daf. Handbook* p. 147)



Stafford (photo from the *Daffodil Handbook*, printed with permission of the American Horticultural Society)

- LINTIE — distinguished by its long tube; flower a bit larger than Bobby Soxer; cup brightest of group, being GYO; perianth light yellow is formal.
- BEBOP — with Lintie, last to bloom. Flower almost circular; sepals overlap; petals touch; each segment slightly cupped; always a really circular flower.
- CURLYLOCKS — all of above are in order of bloom. We have put this last, which flowers first, because it is last to be introduced, by Roberta Watrous. One flower to a stem; cup is widely flaring, twice the diameter of the nearest in size and shape, Bebop. Perianth creamy yellow; three anthers and stigma visible.

We began with the exhortation of our new president. Again, Marie practiced what she preached, and when here, compared a couple with which she was unfamiliar. Do follow her lead.

Going round and round all alone? Get yourself organized. Join a Round Robin.

EDUCATING THE PUBLIC ABOUT THE MODERN DAFFODIL

The Northern Daffodil Club in New Zealand stages its late show in a large shopping mall. Last year the several thousand visitors inundated the club's members with a shower of questions about the different types of daffodils and how they were judged. In order to stem the tide (if I may mix my analogies) our committee decided this year to prepare an educational display. This was placed in the hands of Wilf Hall, an excellent poster writer, and who else but the show judge, Max Hamilton. Thus we not only educated the public, but gained an insight into our invigilator's tastes and beliefs on form, size, color, etc!

The results of these gentlemen's endeavors are shown in the photographs. Wilf prepared ten charts setting out the new color classifications together with brief descriptions of each subdivision. Max prepared the judging points section, demonstrating good and bad points with flowers from his own garden. It was pleasing to know that a grower of Max's skill was prepared to admit to the occasional bad flower in his garden—encouraging indeed for those about to be judged.

The public's reaction was very favorable. I'm sure they viewed the show in a fresh light after studying the display. We received the usual queries and statements—"But isn't King Alfred still the best yellow daffodil?" "Those pinks aren't really daffodils are they?" All were treated with courtesy and respect in order to get daffodil converts. We were amused at an educational psychologist's comment—"aren't there any indifferent daffodils," he inquired, "only good and bad?" And then there was the perplexed middle-aged lady who said that she liked all the bad ones best. Closer scrutiny of the stand revealed that a wag had changed all the cards around!

Max and Wilf are already planning changes and improvements for next year. I feel certain that this stand will be a focal point of our show for many years to come.

PETER RAMSAY, *President, Northern Daffodil Club*



A general view of the exhibit (Ramsay photo)

HERE AND THERE

The cover of the *National Gardener* for September-October 1980 is of a block of four stamps proposed by National Council of State Garden Clubs, Inc., to commemorate the fiftieth anniversary of that organization. The design is by our own Gene Bauer, and one of the stamps is of daffodils. Although the U.S. Postal Citizens' Advisory Committee has rejected the first proposal, National Council plans to keep trying.

The *New York Times* of July 20 included an excellent article, "The Littlest Daffodils are Only Inches High," by Joanna May Thach. The beauty of this article is that it is an accurate account of an interview with Peggy Macneale featuring her garden and her knowledge of miniatures and also giving information about the ADS.

The September, 1980, issue of *Horticulture* has a glorious photo in full color of Matthew Zandbergen in a field of yellow/red double daffodils (Tonga or Tahiti?). The accompanying article, "Hybrids of Plain Luck and Pure Science," touches on the Dutch growing and selection process.

The September *Journal* incorrectly listed Mr. & Mrs. W. O. Ticknor as winners of a Rose Ribbon at Chapel Hill with a Tuggle seedling. A Ticknor seedling was the winner.

Newsletters have been received from the Northern Ireland Daffodil Group and the Tasmanian Daffodil Council as well as the Pacific, Midwest, and Middle Atlantic Regions. Local societies which sent newsletters were the Adena Daffodil Society, Central Ohio Daffodil Society, and the Daffodil Society of Minnesota. Virginia Perry's newsletter summarizes daffodil publicity around the country. Several of the newsletters give instructions for forcing pots of bulbs.

Julius Wadekamper's success with raised beds for his daffodils, as told in our June issue, was reported in Vol. 12, No. 12 of the *Avant Gardener*.

DIVISION 1 : TRUMPET DAFFODILS

of GARDEN ORIGIN

Characteristics: One flower to a stem.

Corona as long or longer than the perianth segments.

Generally early or mid-season.



Trumpets are then subdivided by colour

IY-Y Perianth coloured, corona coloured, but not paler than perianth.



IW-Y Perianth white, corona coloured.



IW-W Perianth white, corona white, not paler than the perianth.



IY-W Any trumpet variety coloured petals, white corona ^{s.g.} Reversed bi-colour.



A close-up of one of the posters (Ramsay photo)

Round Robin letters keep daffodils blooming through the winter. Join by writing to Robin Chairman, Richard Ezell, 1341 Lincoln Way East, Chambersburg PA 17201.

OBSERVATIONS ON THE POLLEN OF SOME SPECIES AND HYBRIDS OF NARCISSUS

BARBARA TULLOCH

*Scottish Horticultural Research Institute
Invergowrie, Dundee, DD2 5DA, Scotland*

INTRODUCTION

In preparation for a breeding program to produce narcissus cultivars, pollen of some species and cultivars was examined in spring 1976 for size and fertility, and in some cases chromosome counts were made. Because plant breeders elsewhere may be interested in the information, most of which has not previously been published, it is presented here as a table. Nagao (1933) measured pollen in several cultivars and seedlings, only one of which is similar to those whose pollen I measured. Sources of information on chromosome numbers of narcissus are Janaki Ammal & Wylie (1949), Wylie (1952), and various papers by Fernandez which are summarized in Darlington & Wylie (1955). Information was lacking on *N. tazetta* and *N. poeticus* hybrids.

MATERIALS AND METHODS

The methods used were those described by Haskell & Wills (1968). Acetocarmine jelly made up to Mark's formula was used to stain the pollen grains. Pollen from ripe anthers was shaken onto a drop of the stain on a slide and the slide left for approximately two hours to allow fertile grains to take up the stain. Up to four slides were made of each cultivar, and forty pollen grains of each were measured with a micrometer eye-piece set to give a magnification of $\times 400$. Only plump, apparently well-formed grains were measured, the maximum measurement being taken. Counts of stained grains and unstained misshapen grains were also made for twenty microscope fields of each cultivar, using a $\times 50$ magnification.

Where roots were available, chromosome counts were made from root tip squashes. The roots were pretreated for three hours in a saturated solution of para-dichlor-benzene and then transferred to acetic alcohol for twenty-four hours. They were softened by hydrolysis with 10% hydrochloric acid for thirty minutes and stained for 2-3 hours in 1% aceto-orcein. Certain cultivars, especially Matador, presented difficulty because their chromosomes appeared to stick together.

RESULTS AND CONCLUSIONS

The most interesting results (Table I, Group 3) were those for the *N. tazetta* hybrids, some of which have $2n=17$ chromosomes, seven derived from *N. poeticus* and ten from *N. tazetta* (C. North, unpublished). These had by far

the most infertile pollen and the size of their stained grains ranged widely, for instance in *Geranium* from 0.050 μmm to 0.072 μmm . Pollen of Ideal was particularly sparse, with only twelve stained grains found on four slides, the smallest being 0.030 μmm and the largest 0.088 μmm . Possibly the large ones had an unreduced chromosome number.

The *N. tazetta* hybrid Cheerfulness and its derivative Primrose Beauty were more fertile than expected in view of the fact that they had double flowers, petaloid filaments, and anthers with relatively few pollen grains, these ranging in size from 0.036 to 0.072 μmm . The cultivar Aspasia was a triploid hybrid with $3 \times = 24$ chromosomes, 14 from *N. poeticus* and 10 from *N. tazetta* (C. North, unpublished), and for a hybrid of this constitution had large and evenly sized pollen grains (0.060 to 0.074 μmm): this was true of plants received both from Camborne in Cornwall and from Cleeve Gardens, Perth.

No stainable pollen was found in the *N. tazetta* hybrids Romeo ($2n = 17$), Golden Dawn ($2n = 24$), or Canarybird (chromosome number not determined). Matador ($2n = 31-34$) and Golden Dawn are stated to be sister seedlings from America (personal communication from Miss B. Fry to Dr. C. North) but they differed in both chromosome number and fertility.

Quick Step (Table I, Group 4) is a tetraploid hybrid selected from the cross Wild Rose \times *N. jonquilla* (Mitsch, 1971). It was fully fertile although the pollen grains were relatively small (0.046 to 0.056 μmm), and it was notable for its strong and attractive scent. Thalia, a *N. triandrus* hybrid of unknown chromosome number, was nearly unstained, its very few stained pollen grains ranging in size from 0.036 to 0.072 μmm . The double-flowered cultivar White Lion (Division 4 in the RHS classification) was almost sterile.

By contrast with most of the other groups studied, including species, the *N. poeticus* hybrids and the modern hybrids (e.g. Golden Harvest, Dominator), which according to Wylie (1952) are derived from *N. pseudonarcissus*, were fertile and tended to have uniform pollen grain size (Table I, Groups 2 and 4). However, in each group the members differed among themselves in the variability of their pollen grains as assessed by Barlett's test for homogeneity of variances. The pollen size of the species measured was usually, but not invariably, slightly smaller than that of the diploid cultivars (Table I, cf. Groups 1 and 2). The pollen both of the species and of the diploid cultivars was considerably smaller than that of the tetraploids. Although the *N. tazetta* hybrids with 17 chromosomes were generally infertile and had pollen grains of very variable size, it is interesting that most of them had some apparently fertile grains, suggesting that it would be possible to make progress in breeding with them.

Stainability is only one of several ways of assessing pollen fertility (Janssen & Hermesen, 1976). No single method can necessarily predict the success of a cross, which also depends on the seed parent and compatibility factors. In a vegetatively reproduced plant a single fortunate combination may produce a new and valuable hybrid, and a plant should therefore not be ruled out as a parent simply because its stainable pollen is sparse or variable. It should also be remembered that female fertility is often higher than male fertility in hybrids of distantly related parents.

ACKNOWLEDGEMENT

Thanks are due to Dr. C. North for his encouragement and for supplying unpublished chromosome counts.

TABLE I

Pollen fertility and size in Narcissus species and hybrids.

Material	Somatic chromosome no. (2n)	No. Pollen grains counted	% fertile pollen grains	Mean size of 40 pollen grains	
				Mean (μmm)	Standard deviation
Group 1—Species:					
<i>N. cyclamineus</i>	14(4)	194	99	.0374	1.39
<i>N. asturiensis</i>	14(4)	216	99	.0412	0.61
<i>N. juncifolius</i>	14(1)	232	42	.0326	1.46
<i>N. rupicola</i>	14(1)	104	100	.0368	1.81
<i>N. pseudonarcissus</i>	14(1)	104	99	.0444	1.67
<i>N. minor</i>	14(1)	195	98	.0458	1.74
<i>N. poeticus ornatus</i>	14(2)	336	95	.0358	2.75
<i>N. poeticus ornatus maximus</i>	14(2)	324	100	.0366	1.87
<i>N. poeticus recurvus</i>	21(4)	163	44	.0560	2.75
<i>N. bulbocodium conspicuus</i>	28(1)	114	94	.0516	1.58
<i>N. triandrus albus</i>	14(1)	133	77	.0382	1.96
Group 2— <i>poeticus</i> hybrids:					
Juliet	14(2)	188	91	.0430	0.96
Hexameter	14(2)	261	98	.0434	0.76
Milan	14(2)	191	89	.0446	1.50
Dactyl	14(2)	136	94	.0452	0.83
Glory of Lisse	14(2)	178	84	.0398	1.27
Sarchedon	14(2)	241	96	.0390	1.25
Sonata	14(2)	135	98	.0410	0.67
Raeburn	14(2)	237	89	.0422	1.05
Horace	14(2)	202	99	.0446	0.95
Caedmon	14(2)	249	90	.0422	0.84
Cantabile	14(2)	172	99	.0442	1.46
Actaea	28(2)	209	99	.0588	1.31
Stilton	28(2)	195	77	.0528	2.06
Perdita	28(2)	194	70	.0492	1.62
Mara	28(2)	153	95	.0508	1.83

Nos. in brackets refer to sources of information—see end of table.

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TABLE I (cont.)
Pollen fertility and size in *Narcissus* species and hybrids.

Material	Somatic chromosome no. (2n)	No. Pollen grains counted	% fertile pollen grains	Mean size of 40 pollen grains	
				Mean (μ mm)	Standard deviation
Group 3— <i>tazetta</i> hybrids:					
Ideal†	17(2)	389	3.1	.0498	8.45
Geranium	17(2)	212	38	.0482	1.77
Geranium (from Camborne)	17(2)	119	14	.0620	2.67
Cheerfulness	24(2)	287	40	.0448	3.30
Primrose Beauty	—	336	46	.0472	2.29
Aspasia (from Camborne)	24(2)	62	48	.0696	2.24
Aspasia (from Cleeve)	24(2)	69	83	.0662	1.87
St. Agnes	24(2)	214	30	.0466	2.60
St. Keyne	24(2)	174	13	.0430	2.29
Matador	31-34(2)	352	83	.0498	3.36
Romeo	17(2)	192	0	—	—
Golden Dawn	24(2)	150	0	—	—
Soleil d'Or	30(2)	518	49	.0414	2.39
Canarybird	—	179	0	—	—
Group 4—miscellaneous hybrids:					
Golden Harvest	28(2)	182	95	.0546	2.44
Malvern Gold	28(2)	172	75	.0542	1.81
Dominator	28(2)	258	92	.0550	3.02
Trousseau	28(3)	142	80	.0532	2.21
Kilworth	28(3)	240	3	.0540	1.79
Sempre Avanti	—	200	87	.0508	1.25
Quick Step	28(2)	192	94	.0508	0.90
Thalia‡	—	178	1	.0534	5.15
Telamonius plenus	14(3)	171	68	.0406	1.62
Fermoy	—	197	8	.0562	2.70
White Lion	—	175	12	.0512	1.51

Nos. in brackets refer to sources of information—see below.

— = chromosome number not determined.

† Only 12 pollen grains measured for 'Ideal'.

‡ Only 18 pollen grains measured for 'Thalia'.

Sources: (1) Darlington & Wylie, 1955. (2) C. North, unpublished. (3) Janaki Ammal & Wylie, 1949. (4) A. P. Wylie, 1952.

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POETICUS PHYSALOIDES - SNIFF AND KNOW

MEG YERGER, *Princess Anne, Maryland*

Sniff and know is a good sleuthing method for identifying a poet that newly bloomed in our Maryland garden in the 1980 season. A remarkable feature of this variety is the fact one could probably locate it in the garden with the eyes closed, the scent is so extremely fragrant.

An Oregon gentleman, George E. Morrill, had thrown the bulbs over the bank across the street from his house years ago and rescued them recently when he became interested in poets as a means to an end in a poetaz hybridization program. Curious as to what poet it could be, he sent me a couple of bulbs for identification.

Even before the blooms opened, the long swollen spathe gave a clue as to what it might be. E.A. Bowles in his book *The Narcissus*, published in 1934, said that such a spathe was unlike that of any other narcissus. He went on to say that "it is described by M. Beauverd in *Bull. Soc. Bot. Geneve*, Series II., xxiii., p. 549 (1931), as *N. poeticus* var. *physaloides*. The exaggerated inflation of the spathe causes it to resemble the enlarged calyx of *Physalis*, the Winter Cherry, and suggested the name. After the flower has emerged the spathe remains dilated below and bears two tongue-shaped lobes at its summit."

The Alec Gray catalogue of 1961 lists the variety and indicates the source as Switzerland.

The opening of the blooms in mid-April, which in Maryland is mid-season for poets, gave a chance to color-code them as 10 W-YYO. The plant blooms on 56 cm scapes. The perianth measures 7 cm in diameter with both sepals and petals twisted in a clockwise direction and a slight staining from the corona color. The corona is cupular, measuring 4 mm in depth and 7.5 mm in diameter with the center and mid color zones yellow and the outer zone a suffusion of orange. Best of all the opening of the blooms gave a chance to enjoy the extremely captivating fragrance. In honesty it must be admitted the appearance is very ungainly, perhaps ugly, but -oh what a perfume! The flower is worth having for that alone.

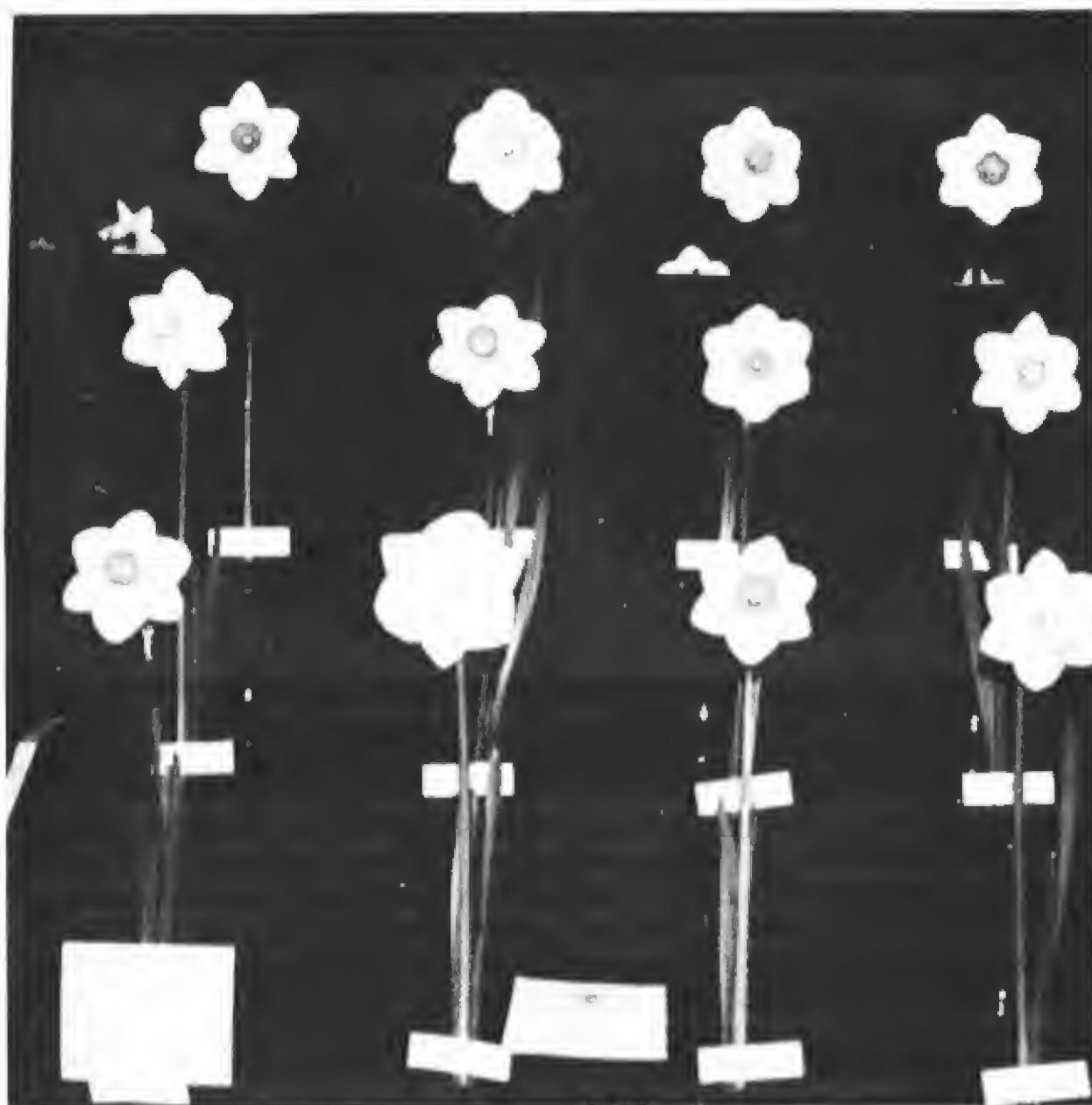
Later Mr. Morrill wrote, "I have been trying to think where I got these bulbs originally. I travelled extensively through the mid-Willamette Valley about 1946 and collected various bulbs at that time from old abandoned homesteads where the house had been burned or had just been abandoned. I think that I picked them up at that time. So it is possible that they were brought across the Plains with the early settlers. There is no telling how long they had been in the US before that time or when they were brought here. So it is possible that they became extinct other places, yet survived in the Willamette Valley."

Ray Scholz of General Robin #2 has been dubbed "King of Manure Haulers" by fellow members. Ray has accumulated over 350 tons of the "good, rotten" stuff, and, according to Isabel Watts, will soon have no room left in his garden for soil.

THE ENGLISH SEASON, 1980

GEORGE TARRY, *Wirral, Cheshire, England*

After the disappointing spring of convention year, we were sure that 1980 could only be an improvement, but few of us foresaw just how exceptional it would be. There was a minimum of cold or snow during the winter period and by March 1 we had every sign of a very early season with plant growth advanced and buds visible. Temperatures then dropped to the level where plant development was halted, but as there was little personal discomfort at this level, even experienced growers took inadequate steps to maintain progress of the blooms programmed for the RHS Competition on March 25. As a result the display was on a par with 1979 with a norm of two or three entries in a class and very few flowers of the quality required to excite comment. Tony Noton won the Devonshire Cup with a nice collection of flowers which come at the start of the season, and he also had best Division 1 with Golden Vale. Mrs. Oxton won most points in the single bloom classes, to add to Best Bloom in Show, Irish Light, and best double, Unique; while Bob



Engleheart Cup Collection: top, left to right: Achduart, Badenloch, Gold Convention, Loch Broom; middle: Pitchroy, Creag Dubh, Cul Beag, Shieldaig; bottom: Loch Hope, Ben Avon, 1-9-71, 2-31-73. (Tarry photo)

Southon was runner-up for most points and had best Division 3 with Kimmeridge.

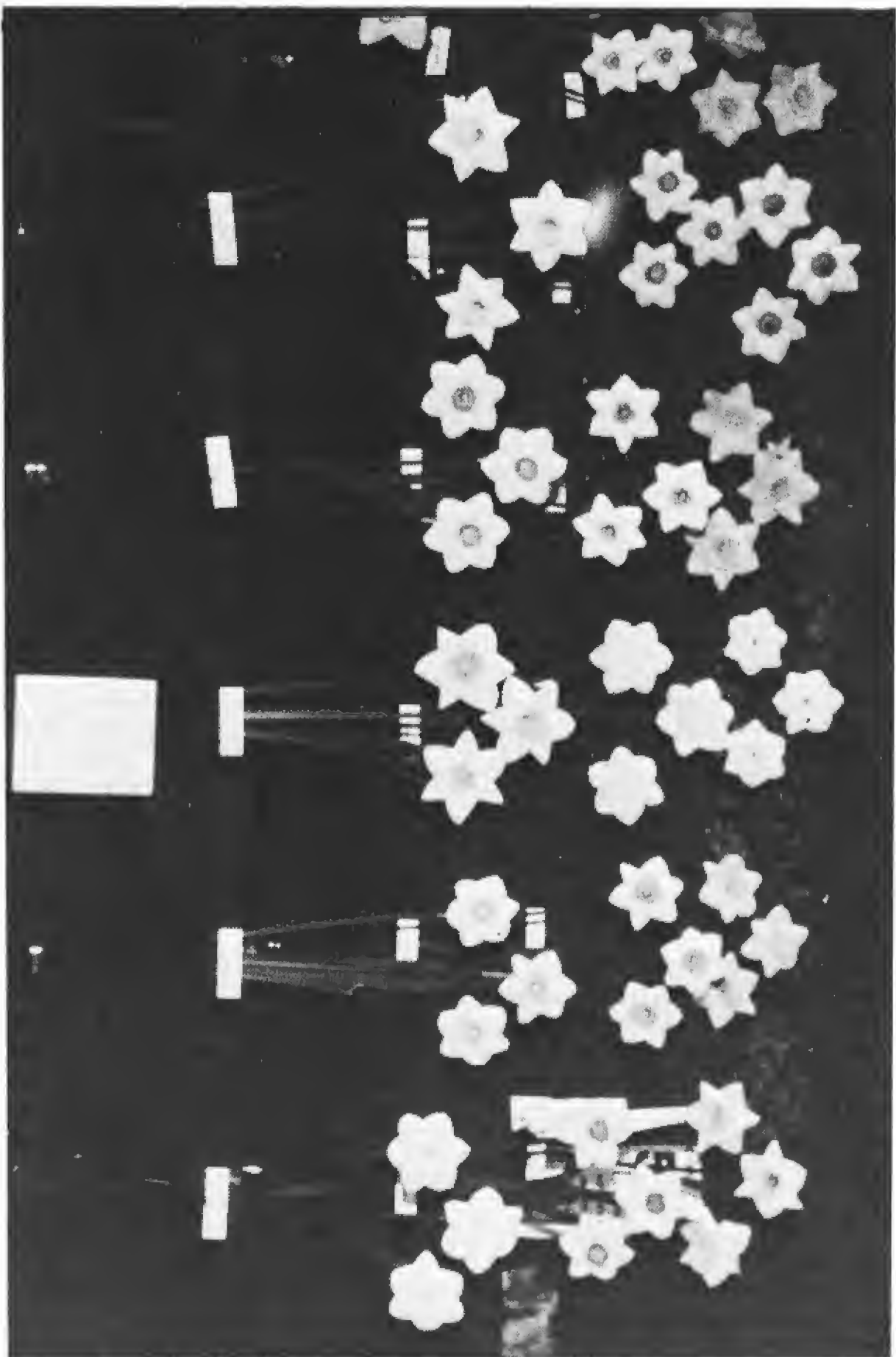
The cold weather continued until early April and then there was a complete change to dry, warm, sunny weather right through to the end of May. By mid-April good flowers from the open were available everywhere, for most growers their best ever, and competition was so keen that honors were difficult to attain. The RHS Show on April 15 was the best for many years both in quality and quantity. Six marvellous entries were staged for the Engleheart Cup (for twelve seedlings) which was retained by John Lea with his best collection ever. A magnificent specimen of Loch Hope was Best Bloom in Show and was well backed by novelties including Badenloch 3 W-YYO, very large and round with a distinctive pale orange band; Ben Avon 1 W-W with its round perianth and narrow trumpet opening to a wide flare; and a refined Creag Dubh 2 O-R. The closest challenge came from Tony Noton whose best flower was the Reserve Best Bloom, Rutland Water 2 W-GWW. Of the remainder I particularly noted Berry Gorse 3 W-GYY and Mill Grove 2 Y-R. In third place Brian Duncan continued his progress towards the major award.

The single bloom classes were keenly contested and with more than twenty entries staged in several classes, it required exceptional flowers to register awards. A best bloom was selected from each division and these were Empress of Ireland (Tony Kingdom), Dover Cliffs (Jim Pearce), Kimmeridge (Reg Nicholl), and Unique (Clive Postles). Other winners were well established cultivars which had been well grown, and expensive novelties made little impression. In the class for flowers with orange perianths, Carncairn were successful with their seedling W1/75, a medium sized bloom with strong color. The award for most points in the single blooms was shared between Tony Kingdom and Wilson Stewart and the records show that this was the first occasion of a tie.

In the Amateur Classes, the two trophies were also keenly contested. Four exhibits were staged for the Bowles Cup, fifteen vases of three blooms, and any one of them would have won in a normal year. In this exceptional year, Clive Postles won by a narrow margin from Tony Noton. Only one cultivar, Unique 4 W-Y, appeared in both exhibits so any comparison relied heavily on personal assessment of the other cultivars used, and the variations in presentation and color range gave adequate scope for those who indulge in the sport of judging the judges when the show had opened.

The Richardson Cup, twelve single blooms, had fifteen contestants, the most ever; and many of the collections were the finest flowers their growers had ever staged, but received no recognition beyond the thrill of taking part in a glorious show. The Cup was won by Paul Payne of Norwich, a grower who has made good progress since he showed in the novice classes in 1977. His flowers were well set up and in perfect condition, and for me the best were Ballyrobert 1 Y-Y, broad and round in the perianth, Premier 2 W-GPP, bright and attractively colored, and Doubtful 3 Y-R, a cultivar which most of us would consider to be below the standard required at this level of competition. Tony Noton was second, his usual high standard being just a fraction short of the requirement for the day.

While the competitive classes claimed the first attention of the exhibitor, the Show was set off by the magnificent background provided by the trade, particularly Rathowen, John Lea, Carncairn, Mrs. Abel Smith, and Broadleigh Gardens.

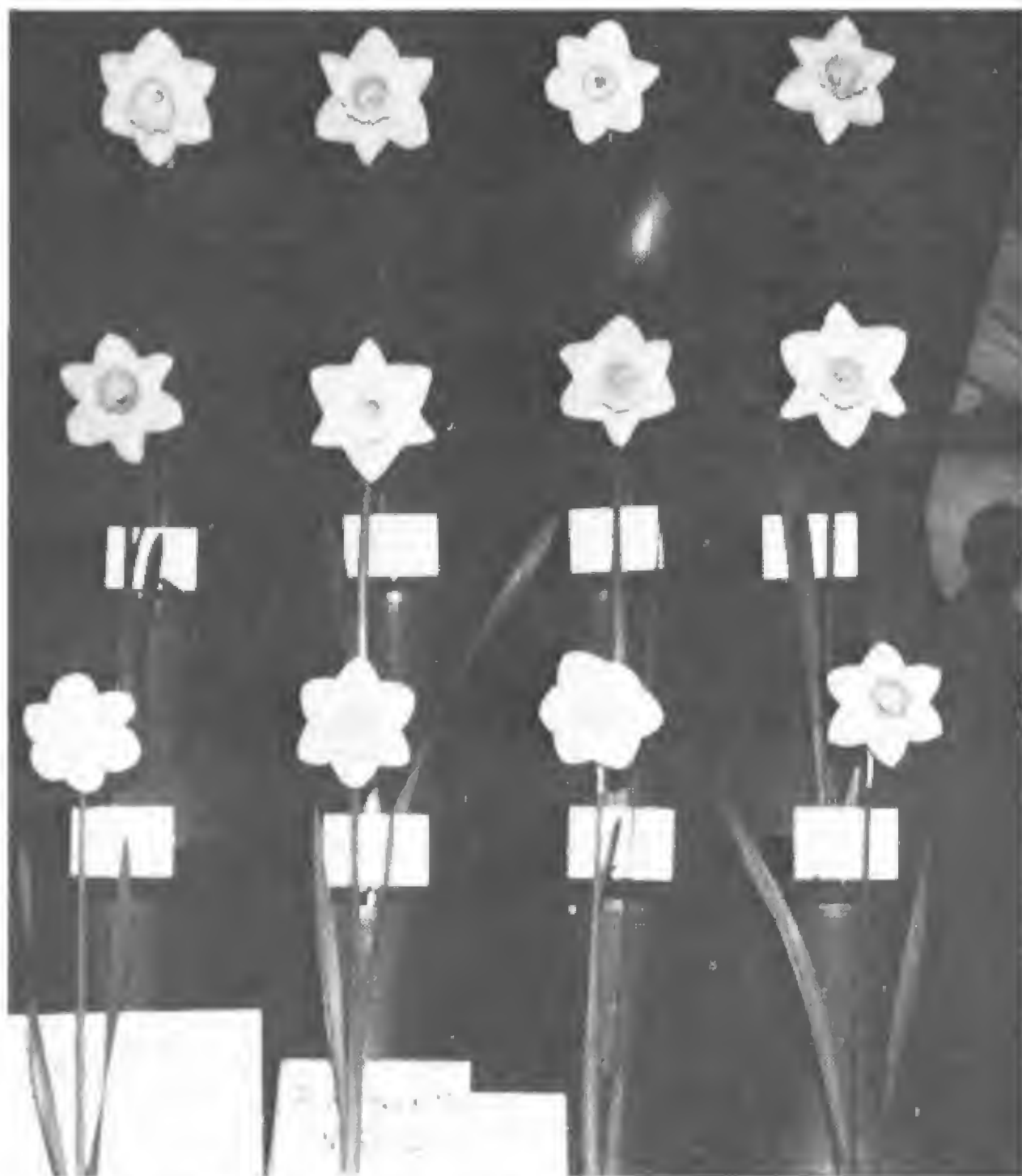


Bowles Cup Collection: top, left to right: 7839, Golden Rapture, Verona, Strines,
 Newcastle; middle: Torridon, Dalhauine, Unique, Hotspur, Loch Lundie; bottom:
 Broomhill, 7901, Glen Rothes, Altruist, Cool Crystal (Tarry photo)



Part of the Rathowen exhibit (Knierim photo)

At the end of the week we assembled at Solihull for the Daffodil Society Show. By nightfall on the Friday there was the prospect of a record-breaking show with all resources strained to the limit, but unfortunately there was a gale in the night and part of the perimeter of the tent collapsed, bringing down and damaging a number of exhibits which had already been staged. The working party of volunteers restored some semblance of normality early on Saturday morning, and the unlucky exhibitors then salvaged what they could, cancelled some entries, and rearranged the best of the surviving blooms as far as this was possible. When the show opened, there was little to suggest that anything unusual had occurred and the show was still the best for very many years.



Norfolk Cup Collection: top, left to right: Drumboe, Armagh, Fiorella, St. Keverne; middle: Leander, Castle of Mey, Arctic Gold, Preamble; bottom: Silent Wonder, Bayard, Merlin, Pinza (Tarry photo)

The much coveted Board Medal was won by Jan Dalton with Newcastle, Shining Light, and Merlin, a well-earned success. The ADS Ribbon attracted four good entries, but none of his rivals could seriously challenge Wilson Stewart's collection of Cool Crystal, Kingbird, Butterscotch, Beige Beauty, and Honeybird.

In the Open Cup classes, the Bourne Cup returned to John Lea for a fine collection not quite up to the standard he set in London, while the Cartwright Cup for twelve cultivars in commerce was won by Alfred Bradshaw with a set which included very good Achduart, Hotspur, and Citronita. In spite of the overnight disaster, there were more entries than usual in the remaining open cup classes but although there were many fine flowers, it was the well established cultivars that won the prizes.

To me, the highlight of the show was found in the amateur cup classes, the collection staged by Ivor Fox of Leeds to win the Norfolk Cup for twelve cultivars in commerce, price limit 50 pence a bulb. Every flower was in first class condition, without blemish and they were all set up in immaculate order. To add an extra credit, his bloom of Castle of Mey was a worthy Best in Show, although there was no weak bloom in the whole set.

The third major event of our season is the Harrogate Spring Show on April 24, originally an outlet for northern growers but now attracting keen exhibitors from a wider area. This is an amateur competition but with a public attendance of 45,000 to 50,000 over three days to see the full range of spring flowers it presents modern daffodils to a wider audience than our other shows. This year saw the introduction of the Northern Championship for twelve blooms, and after the RHS show it was no surprise when Paul Payne took the trophy back to Norwich. Once again he relied on well grown blooms of established cultivars: Kingscourt, Viking, Border Chief, Tudor Minstrel, Ringmaster, Daydream, and Rockall for the major part of his exhibit, giving another boost to our Society's campaign that expensive novelties are no longer essential for success. The Norwich Society backed Paul with the winning exhibit in the Society Class with more blooms of reliable cultivars such as Golden Rapture, Merlin, and Verona. This is our only show where a range of champion blooms is selected, and on this occasion they were Ballyrobert 1 Y-Y, Newcastle 1 W-Y, Empress of Ireland 1 W-W, Loch Stac 2 Y-R, Strines 2 Y-Y, Cool Autumn 2 W-Y, Daydream 2 Y-W, Citronita 3 Y-Y, Rockall 3 W-R, Angel 3 W-W, and Unique 4 W-Y. To complete the triumphant day for the visitors, another Norwich grower, Geoff Bell, was awarded Grand Champion (Best Bloom) for Ballyrobert, but I am sure the northern growers will provide a stronger challenge at next year's show.

The season ended with the Daffodil Society's Late Competition in London on April 29, only two weeks after the main show but already most growers were at the end of their resources and it was only by staging every bloom in acceptable condition that we managed a reasonable display for the public. The premier class, the Noton Cup for six vases of three, went to Mrs. Oxton for the only exhibit staged, and for those interested in flowers for the end of the season her cultivars were Manly 4 Y-O, Lysander 2 W-YYO, Saturn 3 W-GYO, Red Bay 2 Y-O, Daydream 2 Y-W, and Knightwick 2 W-P. Jim Pearce won Best Bloom with Tobernaven 3 W-W, a cultivar which has disappeared from the catalogues; and for the first time we saw a good range of poeticus from the open ground with all their fresh sparkling beauty. And so the season was very brief, but we had the opportunity to stage all our best flowers in good competition with none wasted because they came after the shows.

TEST GARDENS

RUTH PARDUE, *Test Garden Chairman*

The test garden program is currently being expanded. The previously existing gardens were at Clemson University, University of Minnesota, and the University of Arkansas. The garden at Clemson experienced difficulties in that the bulbs had to be replanted due to the construction of parking lots. The new beds were prepared with raw sawdust and most of the bulbs were lost. Some cultivars were sent to Dr. A. J. Pertuit who is in charge of the planting. Otis Etheredge and Curran Craft will follow up on this garden and help with data collection.

New bulbs were sent to the Minnesota planting and a Minneapolis open school. Data will be collected by the 7th and 8th grades in the school. Mr. Michael Heger is the ADS contact person for the Minnesota planting.

The University of Arkansas project, with Victor Watts as ADS representative, received more bulbs.

Four new ADS gardens were established this year. They are at the Denver Botanic Gardens; River Farm, American Horticultural Society's garden, with Mrs. Jennings Pamplin the ADS representative; Riverside Garden, Wheaton, Maryland, Marie Bozievich representative; and Paducah, Kentucky, where Carolyn Roof is the ADS representative. The Central Ohio Daffodil Society and the city of Columbus, Ohio, made available bulbs to be donated in the name of the ADS. Five of the fifteen beds of the CODS garden yielded well over 8000 bulbs from 350 cultivars. Three bulbs of each cultivar were put back. Over 3000 bulbs were sent out for ADS gardens and the remainder were used in other Columbus parks. The CODS garden now contains 1237 cultivars which are true to name, labeled, and evaluated each year.

The test garden chairman has asked each region to supply a list of gardens that fit into any of the following categories:

1. Test gardens where tests are underway
2. Display gardens with large numbers of labeled cultivars where they can be seen together and studied
3. Landscape gardens where different plants are grown in association with daffodils to create a pleasing garden

A test garden report will be assembled yearly with these gardens listed. Also, cultivars growing in the various test gardens will be listed so that new cultivars may be donated by members. It will be stressed that only disease-free, true-to-name bulbs be sent. Test data will be made available in this report. It is the test garden chairman's intention that this detailed report will be sent only to the participating gardens and prospective donors. A condensed report will appear in the *Journal* for the membership's edification.

A packet of information is being prepared for local societies or individuals wishing to start new test gardens. It will give site suggestions, cultural information, evaluation data sheets for cultivars, and other useful information.

It is the plan of the test garden program to expand the scope of the program and to keep the membership aware of evaluation of cultivars in the various regions. The ultimate goal is to have test gardens in each region or locality of this country.

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ISSN 0011 5290
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Tyner, NC 27980
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AMERICAN DAFFODIL SOCIETY, Inc.
Tyner, N.C. 27980

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The

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Vol. 17

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(Tel. 919-221-8388)

All correspondence regarding memberships, change of address, receipt of publications, supplies, ADS records, and other business matters should be addressed to the Executive Director.

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Chairman of Publications

Mrs. Robert Cartwright

1216 Goodloe Dr.

Nashville, Tennessee 37215

(Tel. 615-373-0814)

Editor, Daffodil Journal

Mrs. Paul Gripshover

Rt. 3, 1206 Natchez Road

Franklin, Tennessee 37064

(Tel. 615-790-6202)

Articles and photographs (glossy finish) on daffodil culture and related subjects are invited from members of the Society. Manuscripts should be typewritten double-spaced, and all material should be addressed to the Editor.

DEADLINE FOR THE NEXT ISSUE IS APRIL 15, 1981

SCHEDULE OF MEMBERSHIP DUES IN THE AMERICAN DAFFODIL SOCIETY

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ADVERTISING RATES

Advertising rates for the *Journal* are as follows: full inside page, \$75.00; one-half page, \$45.00; one-quarter page, \$30.00. For additional information, write the Chairman of Publications, Mrs. Robert Cartwright.

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THE COVER PHOTO

is of Golden Aura 2 Y-Y (Richardson, 1964) which showed increase in bloom count each year in the Capen garden. (Photo by Wells Knierim.)

A QUANTITATIVE EVALUATION OF THE LAST 95 RICHARDSON OFFERINGS

ELIZABETH CAPEN, *Boonton, New Jersey*

In 1977, Mrs. Richardson invited us again to visit Prospect House. We had been there in 1962, just after Lionel died and when Nell was pondering what she should do next. As everyone knows, she continued for fifteen more years the leading role in the production and showing of the highest quality exhibition daffodils that she and her husband had held for years.

But by 1977, Prospect House was hardly a shell of its former grandeur, although its chatelaine pursued her charming "hostessing" for which she was famous—gorgeous daffodils in every room, delightful meals, graciously served, and especial solicitation for the heat problems of cold-blooded Yankees.

While inside it was the same Prospect House, the grounds had sadly deteriorated. Gone were the fourteen gardeners who polished the details; gone the one whose sole assignment was the maintenance of those seeming miles of huge, precise hedges; gone the acres of stock plants as well as those fascinating big plots of three, four, and five year seedlings, and even the open beds of potential show flowers, with their scattering of little dunce caps on stakes, protecting potential exhibition blooms from probable hail.

Nell seemed resigned although she mentioned she wished people could see Prospect House as it had been. (I am sure she would have been gratified to know that very soon the ADS would indeed "see it as it had been," when I showed pictures of her 1962 place to the Columbus coventioners.) We thought she was more distressed at the loss of one of her nine laying hens and particularly at the prospective sale of her beloved herd of Jerseys.

Nell and Jack Goldsmith showed us what they still grew, pulling back those strips of Hessian cloth. I took notes—and pictures—and discussed pedigrees and merits—and made want lists. Nell said, "Maybe they'll now believe I am really going out of business."

As it dawned on me that this really was an end of an era, I asked Nell to sell us samples of all of her last three offerings and a few then unnamed seedlings. Over the years, we had always preferred to buy Richardson daffodils after they had been acclimated somewhat in Northern Ireland or by Murray Evans, whose growing conditions were a little closer to our own.

In due course, about 100 bulbs arrived, and we decided that such an important collection demanded especial treatment. We decided that rather than slip each bulb into its appropriate slot in our test garden, determined by its class and date of introduction, we should make a new area, especially for this block of the Last of the Richardson's.

We selected a strip, four feet by thirty-five feet adjoining the "pink" section of our test garden. This area had not been gardened by us for at least twenty-five years and never for daffodils.

Our soil is classified as Gloucester Rocky, named for Gloucester, Massachusetts, and found along much of the terminal moraine of the Wisconsin sheet, the last glaciation of the Pleistocene. It is predominantly podzolic and here is mostly derived from gneiss, although farther east from schist. While interlaced with rocks from small to huge, this strip, having been gardened for over a hundred years, was free of major boulders.

We treated this plot as we had the balance of our test garden: top foot removed and put aside; second foot put aside if good, any subsoil to two feet discarded; below two feet, soil was broken up and the following added: rough compost, undigested organic matter, leaves; slow-acting nitrogenous fertilizer; dried manure (we have no access to fresh); and superphosphate. This mixture was spaded under. Next was added a mixture of about a foot of the best topsoil, half a foot of peat moss, and additional superphosphate.

The final foot, now near the ground level, used the second class top-soil, more peat and superphosphate. My precise prescription will not be meaningful to other areas, as no two soils will require the same treatment, but the above indicates the basic needs. A soil test and a long talk with a local grower of beautiful daffodils are the sine qua non for any beginner.

Following the building of the soil, a soaker hose helped to bind it together and to reestablish capillarity. Heavy losses after careful deep soil preparation without such watering have taught me the necessity of this step.

Bulbs were planted, ten inches apart with tops about five inches below the surface. Most of them were fine DN's, the classic double-nosed bulbs that all suppliers try to send. As always, I indicated the size planted, so years later I can evaluate the quantity of bloom.

Planting was done by class, date of introduction, and alphabet, as we have done in our test garden and sometimes elsewhere. We have found it highly important for any planting, not only to label and to make a plan, but to have a system of labelling, so that when animals and children destroy labels and something happens to that one lost page, you can reconstruct. Most recently this happened to us when deer pranced all over our temporary Richardson labels last winter. Our system saved us.

We mulched with two inches of wood chips and relaxed into one of those winters daffodil growers dream of. Heavy snow cover provided a blanket of protection and a bit of nitrogen to boot.

We knew 1978 could be a great season when little Kenellis (a crazy cross of *bulbocodium* x *triandrus*, our only Division 12, and Alec Gray's very first hybrid) tucked into a protected corner, actually flowered for the second time in over twenty years; and so it proved to be. Not for many years had our spring been so rewarding.

The Richardson 95 were interesting. Every one produced at least one flower. (See chart.) Most prolific was Salmon Spray with five (from DN1 and R1), while four blooms came on Carrickbeg (triple), Montana (D1 R2), Burning Torch (R1), Border Flame (triple), Irish Mist (D1 R2), Rose Royale (triple), Irish Treasure (triple), and Avignon (2 D2). It will be noted that every one of these began with more than a plain doublenose #1 sized bulb, except Burning Torch, which started from a large round. (Before over-emphasizing the latter's strength, I shall add that it did not live up to the promise of its first year.)

Our over-all impression was that of brilliance and height in the red cups, and substance and perfection of form in the doubles. Of course, we knew Nell and Jack were the ones who put the flowers in the bulbs. All we did was to provide a place for them to emerge.

That year, after bloom, I gave the 1000 in the test garden and much of the propagation and display areas a dose of wood ashes from the fireplace.

The winter of 1978-79 was the sort we prefer to forget. It was rough that this last block of Richardson productions had so soon to be subjected to the sort of brutal winter that puts us in Zone 5—minus twenty degrees, with exposed ground and areas sheeted in ice. We lost bloom from most of our shrub and tree collections. Spring began late and was rushed off the stage in a blast of heat. The daffodil displays were just poor.

Of course we anticipated that the second year of bloom here would follow the accustomed pattern, being inferior to the first. This was markedly true. Height, color, size were disappointing. Total bloom count dropped from 221 to 207. Some plants did not show at all: Perseus, Gambler's Gift, Golden Ranger, Arosa, Monterrico, Gay Song. Fourteen others grew but did not flower. Another twenty-four dropped off in bloom count. Four remained the same.

On the positive side, thirty-seven plants increased in bloom count. Golden Aura went from three to six; Rose Royale, four to six. There were five blooms each on Montana, Dancing Flame, Irish Mist, Fair Prospect, Kiskadee, Chopin, and Tamoretta.

No especial treatment other than clean culture seemed called for in the summer of 1979.

The third winter, 1979-1980, was another severe one. In fact, long-time gardeners of this area will argue as to which was the more destructive of the two. The most unusual feature of the fall of 1979 was a heavy snow fall when the trees were in full leaf. It was weird to see the dogwoods and hardwoods at the height of their fall brilliance just laid low. We lost about nine full grown dogwoods, and some nice shrubs and trees had to undergo major surgery. At that time, I did not expect this portended a disastrous winter, but it may have, as the spring reflected the damage.

Our shrubs are the litmus of our seasons. In 1980, *Forsythias* were fine; *Magnolias* magnificent; *Cornus* poor on the whole, as were both *Prunus* and *Malus*. *Citrus trifoliata* (on the tender side) did not bloom at all; but *Corylopsis* (after twenty years) spread its pale yellow racemes over an assemblage of miniature dafs and evergreens. Some of the *Viburnums*, especially *tomentosum maresii*, were sensational as was the so-called "white forsythia" (*Abeliophyllum distichum*). Some later ones, especially *Rhodendrons* (both species and hybrid) had more bloom than ever before. Several of the *Daphne* succumbed, but that is par for *Daphne*. Early spring lacked rain. We gave everything a bit of magnesium sulphate and put the soaker hose on the Richardson plot. I cannot say I was enthusiastic about our daffodil display, but it was an improvement on that of the year before, and we were happy to entertain many visitors.

This hardiness report on the Richardson daffodils, in fairness to the Richardsons, must be viewed against the very severe second and third winters of their life here. Actually, I had long known that our conditions were far more uncompromising than those of Waterford, and so, as mentioned before, whenever possible I had strained our additions from there through the colder climates of Northern Ireland and Oregon.

After their second winter here, the following did not show: Montaval, Arkle, Arctic Mist, Golden Ranger, Arctic Imp, Rossini, Ophelia, Inishmore, Gay Song, and Coral Jubilee.

The following produced a healthy plant but no flower: Burning Torch, Fire Flash, and Tudor Love.

I have another category in recording daffodil performance that I call "wisp." Now, while I majored in chemistry, I avoided any contamination with botany, so I am not sure any botanist will accept this term. In fact, I have two categories: "wisp" and "leaves." Obviously, there is some hope for the latter, but mighty little for the former.

Here is my "wisp" and "leaves" record for 1980: "Lvs:" Barbados, Don Carlos, Ringleader, Jewel Song, Aosta, Inishmaan, Irish Treasure, #880, Montego, Zabarath, Samantha #1, Coral Jubilee #2. "Wsp:" Angola, Pink Champagne, Gay Kibo, Viennese Rose.

Obviously, this represents a severe loss of some famous and some very new cultivars. It underlines our preference for bulbs raised in colder climates, and while the blow came quickly because of the exceptionally brutal winters, I have no doubt that the results would have been the same given kinder years. The Richardsons grew for show, under very protected conditions. Their daffodils were not subjected to rigorous testing. A number of their famous ones have never succeeded here. However, we are hoping that a milder winter and some coddling will bring some of them back to us.

On the positive side, the third year of bloom found the following most floriferous: Mill Reef, five; Montana, six; Golden Aura, nine; Irish Light, seven; Fiery Flame, five; Bold Lad, five; Irish Mist, eight; Rose Royale, eight; Salmon Spray, six; Ballyroan, five; Misty Glen, six; Kiskadee, seven; Avignon, eight; Golden Eye, six; Beauvallon, six; Tamoretta, five.

There was agreement among those visitors whose votes we count—and this year they included John and Marie Bozievich and Phil Phillips, who dropped in here after visiting nine shows. Perhaps their evaluating antennae were tuned—or perhaps dulled—after seeing so many, but they agreed with others of us that Misty Glen won Best-of-Show, although I suspect John, by that time, preferred the shellfish.

We decided it would take another year of growing here, before a qualitative evaluation would be justified—maybe even longer. Some daffodils, like some people, are “slow developers.” Many varieties, in our experience, peak in their third, fourth, and even seventh year.

This fall, I shall chlordane, as we have had too many flies, and I shall use a very simple maintenance procedure we have found successful: a top dressing of dried manure and 0-20-0. After three months of the most extensive drought on record, we have finally had dribblets of water that seem to have started belated daffodil root growth, although too late to save many trees, shrubs, wildflowers, and ferns. We are hopeful that in their fourth season here, the last 95 from Prospect House will put on the show we expect from Richardson originations.

I customarily use the following to designate bulb sizes:

- 2nt — with 5 noses
- 2d — with 4 noses
- T — with 3 noses
- t — small triple
- D — large double nosed
- d — small dn (Trade D2)
- R — large round
- r — small round (Trade R2)
- s — slab, offset, scrap

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QUANTITY EVALUATION
of the
Last Offering from
RICHARDSONS

CLASS	YR	CULTIVAR	BULB SIZE	NUMBER OF BLOOMS		
				1978	1979	1980
1Y-Y	63	Carrickbeg	T	4	1	1
	63	Olympic Gold	T	3	4	3
	64	Montaval	D	1	2	-
	64	Revenge	Qd	3	2	2
	68	Arkle	Rr	1	1	-
	72	Sir Ivor	T	2	4	3
	73	Angola	D	2	0	wsp
	73	Mill Reef	D	3	4	5
	74	Golden Prince	RR	2	3	2
1W-Y	76	Tudor Dance	D	2	3	3
1W-W	63	Perseus	D	2	-	-
	69	Montana	Dr	4	5	6
	77	Arctic Mist	Ds	2	0	-
2Y-Y	64	Golden Aura	D	3	6	9
	68	Gambler's Gift	T	3	-	-
	74	Celtic Gold	D	1	2	2
2W-WWP	67	Celtic Song	D	1	3	1
2Y-W	76	Cairngorm	D	3	4	2
2Y-Y	76	Golden Ranger	D	2	-	-
2Y-R	62	Fiery Flame	D	3	4	5
	63	Caracas	D	2	1	3
	66	Pipe Major (Board)	D	2	3	3
	67	Burning Torch	R	4	2	0
	68	Dancing Flame	T	3	5	5
	72	Border Flame	T	4	2	3
	72	Irish Light	D	2	3	7
	72	Safari	D	2	2	2
	74	Bold Lad	D	2	3	5
	74	Gala King	D	3	2	3
	76	Fire Flash	2R	3	2	0
	76	Orange Light	D	2	2	2
2W-Y	72	Irish Mist	Dr	4	5	8
	73	Tudor Love	D	3	4	0
	74	Trouville	D	2	1	3
	76	Arctic Imp	R	2	3	3
2W-R/O	61	Royal Regiment	t	3	0	-
	63	Barbados	D	2	2	lvs
	64	Don Carlos	T	2	0	lvs
	67	Irish Rover	D	2	2	2
	68	Honduras	DR	2	2	1
	68	Rossini	D	2	1	-
	72	Ringleader	D	2	3	lvs
	73	Random Light	t	1	3	3
	76	Red Marshall	RR	1	2	4
	77	Lanzarote	D +	1	1	1

CLASS	YR	CULTIVAR	BULB NUMBER OF BLOOMS			
			SIZE	1978	1979	1980
2W-YP,W-P	73	Coralita	T	3	3	2
	73	Santa Rosa	D	2	3	2
		Sdl 880 (4078) #1	T	3	2	1
2W-P	58	Rose Royale	T	4	6	8
	61	Rainbow	DR	3	2	3
	62	Fair Prospect	2R	3	5	4
	67	Jewel Song	T	1	0	lvs
	67	Ophelia	D 2sc	1	0	-
	67	Salmon Spray	DR	5	4	6
	68	Aosta	R	2	1	lvs
	72	Arosa	R	1	-	-
	72	Inishmaan	DR	1	0	lvs
	72	Tara Rose	D	3	1	1
	74	Ballyroan	T2	2	4	5
	74	Gracious Lady	T	2	1,2blst	3
	76	Sea Rose	T2 +	3	3	3
	77	Irish Treasure	D	4	1	lvs
		Sdl. 880 (4078) #2	T	2	1	1
2W-W	76	Inishmore	T	3	4	-
	76	Persepolis	D	3	4	4
	77	Misty Glen (Board)	D	2	3	6
2Y-W	77	Lemon Candy (#226)	T	2	2	3
		#4131 Golden Aura x	#1	2	1	1
		#4131 Daydream	#2	2	4	0
3Y-YYO	68	Montego	Q	2	1	lvs
3Y-YYR	72	Zabarat	T	3	4	lvs
3W-GYY	71	Esmeralda	T	3	0	1
3W-YYW	72	Kiskadee	T	3	5	7
3W-WWY	72	Silver Leopard	D2R2	2	4	4
3W-GYY	73	Avignon	2D2	4	4	8
3W-Y	73	Chopin	T	3	5	2
3W-Y	74	Goldeneye	T	2	4	5
3W-R	62	Parthia	D	1	2	1
3W-GGR	63	Fiorella	D2s	2	0	1
3W-RRY	63	Leonora	R	2	1	1
2W-W	72	Snowcrest	2R	3	2 bl	3
4W-WOO	62	Monterrico	D	2	-	wsp
W-W	63	Takoradi	T	2	1	1
W-WOO	64	Gay Record	D	2	1	1
W-W	64	Gay Song	Ds	2	-	-
Y-ORR	69	Beauvallon (Lloyd)	D	2	4	6
W-ORR	69	Tamoretta	DR	2	5	5
W-WPP	72	Pink Champagne	D2 R2	3	1	wsp
	72	Samantha #1	D	2	1	lvs
		Samantha #2	T	2	0	-
W-WOO	73	Gay Ruler	D	2	2	4
	74	Gay Kybo	D	2	0	wsp
	73	Caballero	D	2	1,2bl	2
W-WPP	76	Viennese Rose	3R2 s	1	0	wsp
	77	Coral Jubilee (No. 21)	D	1	0	-
	77	Coral Jubilee #2	R	1	0	lvs
		Totals		221	207	207

BULLETIN BOARD

The Executive Directors plan to be away from home from March 15 to March 31. Anyone who needs any supplies, especially show entry tags, during that time or later should make their request in advance of March 15.

Daffodils to Show and Grow - 1980 is available from the Executive Directors for \$4.00. This new book, received from the printer in early January, is a completely revised and updated, classified, descriptive list of daffodil names. It is published in conjunction with the Royal Horticultural Society.

The Royal Horticultural Society Yearbook, *Daffodils 1980-1981*, also received by the Executive Directors in January, can be purchased for \$5.00.

Many years ago Executive Director George S. Lee, Jr., purchased a large number of *Journal* binders for the Society which he sold for the then high price of \$3.40 each. Inevitably, in time, the stock of binders was exhausted. After considerable research and negotiation another stock of binders has been procured and is available for purchase by members. Cost, including postage, has since zoomed. They are sturdy attractive green binders with THE DAFFODIL JOURNAL stamped in gold on the spine and on the cover. Price, including postage, is \$7.50 east of the Mississippi, \$8.50 Canada and west of the Mississippi, and \$10.00 overseas.

COMING EVENTS

March 25, 1981	3:00p.m., Board of Directors Meeting, Newport Beach
March 26-28, 1981	ADS Convention, Newport Beach, California
April 4-12, 1981	Daffodil Festival, Puyallup Valley, Washington
April 11, 1981	Daffodil Parade, Tacoma, Puyallup, Sumner, Washington
April 14-15, 1981	RHS Daffodil Show, London, England
April 25, 1981	Championship of Ireland Show, Portadown, Northern Ireland
May 3, 1981	Daffodil Show, Omagh, Northern Ireland
October 23-24, 1981	ADS Fall Board Meeting, Dallas, Texas
April 1-3, 1982	ADS Convention, Nashville, Tennessee

WHERE CAN I GET . . . ?

CULTIVAR:

Tazettas - any cultivar or species for display garden at Mississippi College, Clinton, Mississippi

DESIRED BY:

Dr. Theodore E. Snazelle
418 McDonald Drive
Clinton, MS 39056

CORRECTIONS TO DAFFODILS TO SHOW AND GROW

In checking the new copy of *Daffodils to Show and Grow*, Dr. Throckmorton has noted that the computer failed to note the division of several cultivars. Please note in your copy that Cool Flame is in Division 2, and that Apotheose #, Double Diamond, Double Perfection, Eriskay, Grebe, Meander, Ocarino, Praline, and Smokey Bear are all in Division 4. Also, Royal Porcelain is a 2W-WPP registered in 1963 and bred by Richardson. In the list of hybridizers, note that B.O. Mulligan is from the USA.

JUDGING SCHOOLS - 1981

Course I -March 7, 1981, in Conway, Arkansas; Mrs. Volta Anders, 1628 Maul Rd. N.W., Camden, Arkansas 71701, Chairman

Course II -May 8 or 9, 1981, in Chaska, Minnesota; Julius Wadekamper, 10078 154th Avenue, Elk River, Minnesota 55330, Chairman

Course III-April 13, 1981, in Richmond, Virginia; Mrs. Lester Belter, Route 2, Box 217 A, Mechanicsville, Virginia 23111, Chairman

Course III-(tentative) May 10, 1981, in Chaska, Minnesota; Julius Wadekamper, 10078 154th Avenue, Elk River, Minnesota 55330, Chairman

Accredited Judges may audit any of the above listed schools to fulfill the requirement for a required refresher course every three years. No examinations are required.

At the ADS Convention March 26-28 in Newport Beach, California, Accredited Judges may audit a group of designated lectures as credit toward their requirement for a refresher course. Information is available from Regional Vice-President Ms. Marilyn Howe, 11831 Juniette, Culver City, California 90230.

Accredited Judges who are not able to attend any of the above listed courses should contact their Regional Vice-Presidents to find out where an approved course is being held in the region. Such courses and the instructors for them must be approved by the ADS Judging Schools Chairman. Generally the instructors should be chosen from the list of ADS Approved Instructors and the format of the course must in some way help to improve judging standards. RVP's should make early requests for approval since in most cases the matter is referred to the ADS President for her recommendation.

—MRS. MERTON S. YERGER, *ADS Judging Schools Chairman*

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Co. Down, Northern Ireland

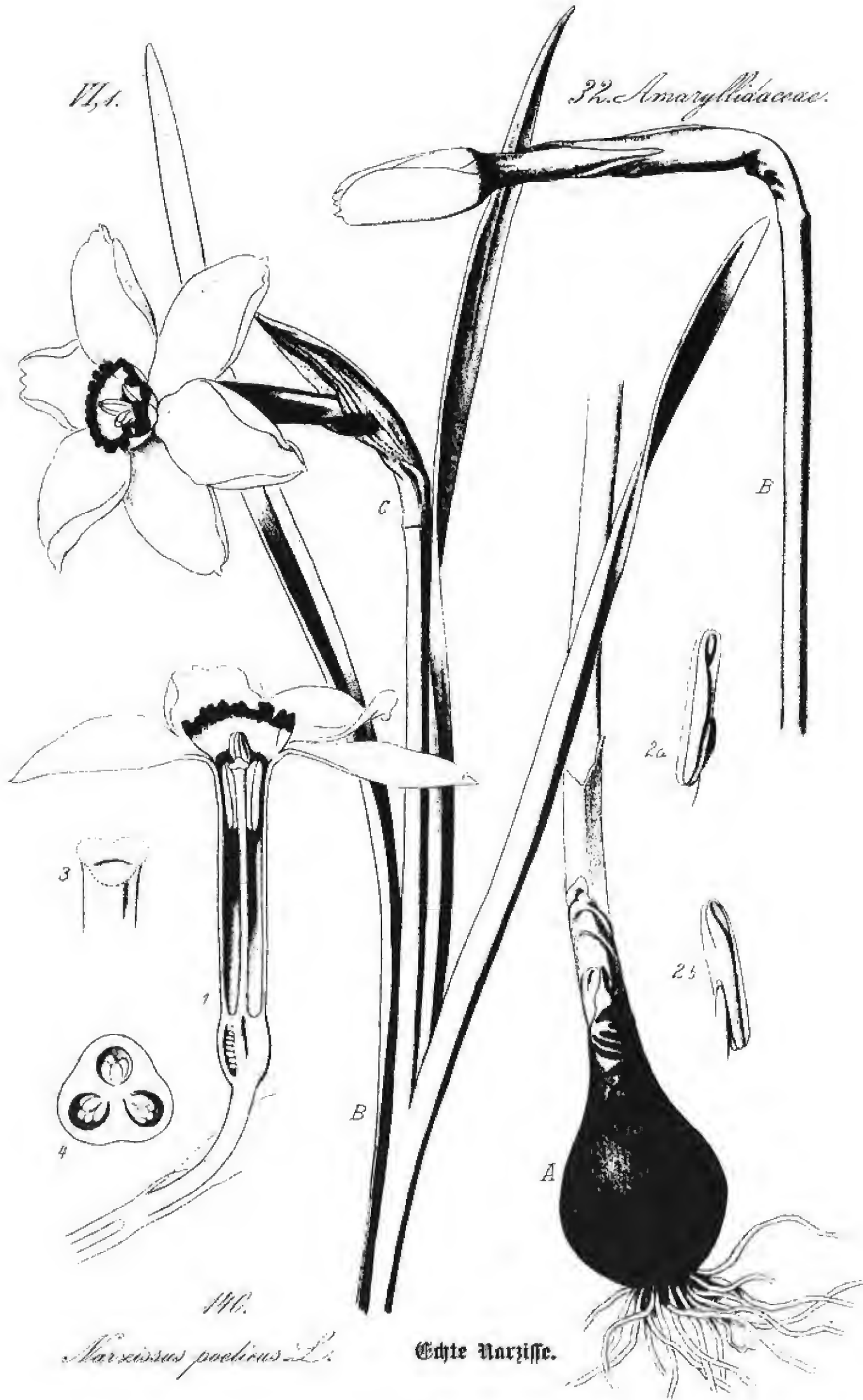
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All selected for vigor, substance, and depth of color. Gratis bulbs for early prepaid orders.

Catalogue free to ADS members on request.

174.

32. *Amaryllidaceae.*



176.

Narcissus poeticus L.

echte Narzisse.

Genus 170: *Narcissus* L., Daffodil.

Bulbous plants with basal, linear leaves. Flowers subtended by a spathe. Perianth segments fused to a tube at their base and with tubular or funnellform lobes; corona present. Stamens inserted, anthers dorsiflexed, free, and dehiscent along their whole length. Fruit a berry-like, trilocular, polyspermous capsule.

A. Corona long-campanulate. Flowers usually single, yellow.

1. Corona cup-shaped, with serrate and crisped edges as long as or longer than the perianth lobes; both deep yellow. Good scent. Flowers single. Flowering time March to May. Height 20-35 cm. In Alpine Meadows and between shrubs in the southern part of the area. Rare.

Narcissus pseudo-narcissus L.

2. Corona campanulate, half as long as the perianth lobes, the first deep yellow, the latter very pale yellow. Flowers usually single, rarely three. Good scent. Flowering time April-May. Height 30-40cm. In meadows and in gardens under trees in the southern part of the area. (*N. pseudo-narcissus* × *poeticus*?)

Narcissus incomparabilis Curtis.

B. Corona bowl-shaped, much shorter than perianth lobes.

- a. Flowers several, yellow; corona darker than perianth, entire. Flowering time March. Good scent. Height 30-40cm. On infertile and stony slopes in southern Istria.

N. Tazetta L.

- b. Scape 1-3-flowered. Perianth white.

- a. Corona yellow with red edges, serrate. Perianth lobes dirty white. Scape usually 2-flowered. Flowering time April, May. Height 30-40cm. In meadows in Styria and western Switzerland.

N. biflorus Curtis.

- b. Corona yellowish with red edges. Scape usually 1-flowered.

1. Perianth lobes ovate, overlapping at the edges. Corona edges undulate, unevenly serrate. Ovary at flowering time bipartitely compressed at the top. Flowering time May. Height 20-40cm. In meadows and amongst shrubs in the southern part of the area. In the north probably as garden escapes.

N. poeticus L.

2. Perianth lobes longish, seldom, but more often not, overlapping at the edges. Corona edges undulate, unevenly serrate. Ovary. Flowering time April, May. Height 20-30cm. In mountain meadows of the Alps, the Pre-Alps and the Jura.

N. radiiflorus Salisbury.

—Translation by MRS. MCHARDY, Germany

(The illustration and above translation are from Prof. Dr. Thome's *Flora von Deutschland, Osterreich und der Schweiz* published in 1886.)

HERE AND THERE

The word from California is that New Zealanders Phil and Graham Phillips, Tasmanian David Jackson, and Barbara Fry from Rosewarne in England will be among the speakers at the convention.

We are saddened to learn of the death in December of Dr. Goethe Link. Board members who visited the Link home last September, and all who knew him, share Mrs. Link's loss, and send her their deepest sympathy.

A new book, *How to Photograph Flowers, Plants & Landscapes* by Derek Fell, devotes several pages to Lentenboden, the garden of Charles Mueller in New Hope, Pennsylvania. (H. P. Books, Box 5367, Tucson, AZ 85703)

The Swarthmorean of October, 1980, reports that the "Scott Horticultural Foundation of Swarthmore College formally dedicated that area's first groundbreaking solar greenhouse in honor of its first Director, John Wister, and his wife Gertrude, a distinguished horticulturist and former Director of Tyler Arboretum, at ceremonies Sunday, October 5."

Vol. 12, No. 16 of the *Avant Gardener* includes a condensation of Frances Armstrong's article on miniature daffodils which appeared in our September issue. In Vol. 12, No. 19 of the same publication, Ceylon is described as "the noblest daffodil of them all."

The October 12, 1980, issue of the *Los Angeles Times Home* tabloid includes an article by Robert Smaus, "Daffodils by the Dozens," which is a beautiful, full color photo essay of Gene Bauer's garden in the San Bernardino Mountains. From the looks of the photographs, Daffodils by the Thousands would have been a more appropriate title! In a late December letter, Gene writes that ADS members attending the convention are most welcome to visit her and her daffodils. Be advised, however, that her garden 100 miles northeast of Newport Beach is at an elevation of 5500 feet and the weather there is considerably different than that which prevails at the sea level elevation of mild Newport Beach. Also, there is no dependable public transportation from San Bernardino to Running Springs, so a car becomes a necessity. Driving time from Newport Beach to Running Springs is one and a half to two hours. Anyone interested in visiting should write her, Mrs. Dale Bauer, Box 205, Running Springs, CA 92382, phone 714-867-2254. From the looks of the photos, it's certainly worth the effort!

Newsletters continue to arrive from various local, regional, and national societies telling of daffodil activities around the world.

The Northeast Regional Show, Chambersburg, Pennsylvania, has been rescheduled for April 28, 29, 1981. Celebrating the Fiftieth Anniversary of the Chambersburg Garden Club, the Show is going to require unusually lengthy preparation, and the Easter Weekend made the earlier date impracticable. This show is to feature numerous special awards, including gift certificates for bulbs of John Lea's Gold Convention and Phil Phillips's Divine. There will be a special section for blooms of cultivars registered fifty or more years ago, and one for gardeners who grow fewer than 100 cultivars.

For a touch of nostalgia 1981's schedule will reprint a schedule from one of the Club's earliest shows—so refresh your memory for terms such as "Incomparabilis," "Leedsii," and "Barrii." And lest we think the need for a sense of humor in coping with the frustrations of showing daffodils is something new, here's a quotation from that ancient document: "The schedule—that seldom read, much misunderstood, frequently misinterpreted, often justly criticized, perennial headache." The more things change . . .

When Ted Snazelle, whose series on pests and diseases concludes in this issue, moves to a new area, he takes not only his own bulb collection, but immediately begins plans to establish a test garden in conjunction with the university with which he is associated. Since joining Mississippi College in June, he has made arrangements to plant an experimental garden on the grounds of the president's residence. Bulbs of 300 cultivars were donated by Wells Knierim and Dr. Bill Bender and were planted in November.

.....

Dear Daffodil Abby,

The Burpee Co. suggested that I contact you for information they were unable to supply.

Can you tell me for whom the Mary Copeland daffodil was named? It is of particular interest to me.

Thank you for your help.

Very truly yours,
Mary Copeland R.

Dear Mary Copeland R.,

Your namesake, Mary Copeland, daffodil made her debut in 1914. For not just years but for decades this white and red double daffodil reigned supreme in its class. Year after year it was chosen in ballots as the best double daffodil and usually chosen without a rival mentioned. In her mature years, Mary Copeland eclipsed her fame for beauty by her fame as the mother of a most remarkable child, Falaise, and the grandmother and ancestress of a whole new great race of double daffodils.

In 1934 the Irish hybridizer, J. Lionel Richardson, found a seed pod on Mary Copeland, a most unusual circumstance as doubles were almost always sterile. One seed became the white and orange, Falaise, itself remarkable as a most fertile double daffodil. Crossed with the strong, handsome daffodils of its day, Falaise children had beautiful blooms far surpassing itself or Mary Copeland but they all must acknowledge Mary Copeland as the grand dame of the family.

The 39 or so reference books that I looked into tell me little about Mary Copeland's childhood. She was raised by Mr. W. F. M. Copeland [of Copeland china fame] and spent her first years at "Shirley" near Southampton in England. Mr. Copeland named a daffodil Mrs. Wm. Copeland, presumably for his wife. Another was named Irene Copeland. It seems likely that Mary Copeland was named after Mr. Copeland's daughter but it might have been his Mother or sister.

With her own magnificent progeny available, Mary Copeland is seldom seen now and I do not know of a single catalog dealer who sells it although I've seen it for sale at a store garden center. If you wish I can ask the membership of the American Daffodil Society if any of them can make available a bulb to you.

Daffodil Abby

.....

Fly North with the Robins . . . and South, and East, and West. Write to the Round Robin Chairman, 1341 Lincoln Way East, Chambersburg PA 17201.

COMMERCIAL DAFFODILS ALONG THE MID-ATLANTIC COAST

GRANVILLE HALL, *Gloucester, Virginia*

Daffodils are still grown along the coast, and blooms are shipped each spring to northeastern cities, but the annual crop of some 15,000 boxes seems but an echo of those years when it exceeded 75,000. To the old timers, it's a wistful echo, attached somehow to remembrance of what seemed best in life. Few growers I have known over the past thirty years will admit to any motive other than profit; but there were, I think, other things of value. And, besides, there wasn't that much profit . . .

At first, there was—when Mrs. Mordecai Linthicum Smith of "Toddsbury" and "Holly Hill" farms in Gloucester County decided to try a few Trumpet Major blooms in Baltimore. They were picked from descendents of bulbs brought over by early English Virginians, and by the time of Mrs. Smith's little adventure in the '90s, had spread throughout the countryside. She packed several hundred blooms in laundry baskets, covered them with cheesecloth, and sent them off on the Bay steamer to Union Station in Baltimore. In Baltimore, William Thomas (her son by a former marriage) resold them to newsboys who retailed them on the street. Business was brisk, the word spread, and neighboring farms were soon dotted with beds of transplanted trumpets.

During those early years before World War I, daffodil growing in the area was limited to family-unit production of trumpet blooms for Baltimore, but other interests were stirring. Charles Heath, a transplanted New Yorker, had long been growing fancy imported Dutch and English bulbs on his "Auburn" estate across the North River from "Toddsbury." The James and Nicholson families of Robins Neck were propagating a newly-imported Dutch variety called Emperor; and near Auburn, the Hicks brothers, Allan and "Bobbie" were beginning to think big. As time passed, "flower growing" spilled over into the neighboring counties of Mathews, Middlesex, and York; then down across the James River to Southside Virginia for earlier blooming.

Between the wars, cut daffodils were profitable enough, and the bulb trade began to grow. During this period, the business was greatly influenced by three factors of significance: rapid development of the motor-freight industry, the bulb quarantine of 1926, and growth of the industry among Dutch-Americans along the North Carolina coast. Tractor-trailer rigs reached out to expand the market to Philadelphia and New York and probed ever further south for earlier blooms. The bulb quarantine brought M. Van Waveren's bulb farm from Holland to "Auburn" and installed Charles Heath as manager. "River's Edge Farm" entered into the bloom and bulb trade for Mr. and Mrs. Snowden Hopkins, and Virginia bulbs were in high demand for the wholesale trade, now denied by the quarantine. More and better varieties were planted in better land, and tended with consummate care. In North Carolina, Mynheer Leenhardt Van Staaldunien emigrated his family to "Terra Ceia Farm" near Pantego, and planted everything he could remember from his beautiful Holland. Near Wilmington, the Van Dorps, Oosterwycks, Bracks, and Van Gyzzens (and others) were doing their thing with both blooms and bulbs; and Allan Hicks and Sidney Barendz carried daffodils into South Carolina near Hilton Head. Eventually, Hicks extended his plantings north

into Maryland and Pennsylvania, and learned to migrate with the spring geese—and to converse in Pennsylvania Dutch. Things began to blossom.

With the accumulated momentum of the pioneer and a natural (Easter blooming) advantage, Gloucester and Mathews counties in Virginia continued to dominate the daffodil business along the coast. Trumpet Major was still grown, but had long since passed its crown to the undisciplined English head of Sir Watkin, then Emperor, and finally, the golden King Alfred. Among the proud conservative people of these counties, competition thrived—and quality flourished. The Hicks, Hudgins, Mickleborough, Janney, Hopkins, Garret, Field, Soles, Sutton, Tatterson, Heath, Jones, Walker, Gayle, Healy, Kemp, Emory, and a hundred other families vied for advantage on the market. Every likely new variety was tried, and cultural experiments were as numerous and diverse as the growers. Someone (probably George Heath) replaced rags, raffia, and string ties with a marvelous invention called the rubber band. Shipping containers evolved from laundry baskets to slat crates, and finally, to Allan Hick's fiberboard carton, which is universally used today. Planting, picking, bunching, watering, and packing operations were subjected to the most demanding standards—and were the topics of many heated discussions in field and packing shed. It has been said that some fathers cared more about how their kids "laid up" a bunch of King Alfreds than their grades in school. (Who ever heard of going to school in flower season, anyway?) No question about it: King Alfred was king, money was made, hard work had produced reward, and everything was in its place—when World War II intruded into the consciousness of the country.

Wartime conditions cut off the supply of foreign bulbs, restricted transportation and the commodities of production, and severely limited the most critical production factor—labor. Van Waveren had closed his bulb farm when the quarantine ended in '37. His manager, George Heath (Charles's son) was continuing the operation as "The Daffodil Mart," and Mrs. Selena Hopkins, now widowed, was running "River's Edge Farm" with her daughter, Rebecca. The market remained good throughout the war; and those that could produce, prospered.

With the end of wartime restrictions and shortages, daffodil growing was resumed with a vengeance! New plantings were established everywhere with whatever proved practicable in the way of mass-production and mechanization. A New York firm constructed a facility and opened "K & R Wholesale Florists" within a stone's throw of Mrs. Smith's trumpet beds at Nuttall. Both of the Hicks brothers and Lloyd Emory put up greenhouses and forced daffodils into bloom for St. Valentine's Day, then New Year's, and finally, Christmas. Over at Cobb's Creek in Mathews, Howard Hudgins and his partner, Douglas Thomas ("M & G Transportation Co.") rose to the occasion—in spades! They built a large cold room in their freight terminal, and acquired facilities to process daffodils by the thousands of boxes daily. They freighted practically all blooms shipped in the area, buying and brokering on opportune occasions. Ultimately, they expanded to the "K & R" building at Nuttall when that firm closed out. With increased production, came more cold rooms, and, naturally, more production to fill them; it was individual free enterprise at its best—or worst. It is ironic that this condition was reached just as Dutch hybridizers had produced Flower Carpet, the ideal variety for the American market. More prolific than King Alfred, and earlier than Carlton and Emperor, it had proven its claim to the crown.

Markets were soon overwhelmed and prices dropped drastically (in relation to the inflation). At first, it was viewed by many as a transient condition which would right itself—but it didn't. Trade associations were organized in Virginia and North Carolina, and state bureaus assisted with marketing and quality control programs, but the over-production was simply too great for the market to bear. As prices fell, expediencies arose. Mostly, the expediencies were aimed at cutting the cost of production, rather than the over-production. Understandably, no one was willing to sacrifice a freshly-bloomed field of King Alfreds in the hope that the market would improve for his Emperor patch. Nor was anyone eager to plow up bulbs to plant corn at 75¢ a bushel, so the stalemate continued for a time—but cultural practices didn't. Bone meal and fertilizer were withheld, cultivating was abandoned by many, replanting was rare, and off-season maintenance was limited to one or two "bush-hoggings" in the early fall. Bulbs grew smaller, multiplied, and produced smaller blooms for a demoralized market. At the peak of this fiasco in the mid-sixties, thousands of boxes were dumped at the markets, others brought as little as \$2 per box, less commission and freight, in that order. On some occasions, they were returned to the grower intact, on the same truck that carried them away—round trip freight and no sale.

A sad situation, compounded by rising inflation; but the best was yet to come—increased competition from high quality blooms off the west coast. And all kinds of other cut flowers from Holland, Egypt, Israel, Central and South America, and Hawaii. Fast, inexpensive air and motor freight had found a way to shrink the globe—and break the camel's back. One by one, and with great reluctance, the old timers gave it up. "Old" timers—because there were no young ones to give it up; changing values and life-styles had led them on to other things.

The Hunts still cut blooms and retail bulbs at "River's Edge," and Brent Heath does a lively retail business in novelty bulbs (including some of his own hybrids) over at the "Daffodil Mart." And, down at Pantego, "Case" Van Staaldin cuts blooms by the million and wholesales bulbs by the ton. Allan Hicks, now 84, clears a large crop of flowers and bulbs each year, and says he'll continue "until he gets too old." And, among a couple dozen other growers, the business clings to life. There is cause for optimism; the energy crunch and soaring inflation have done nothing to shorten the distance across the continent or oceans. This trend has been reflected in sharply rising prices for imported bulbs and west coast blooms over the past couple of years. And, amidst the recession gloom, the words of an old friend come to mind: "Jonquils were a 'hard times' flower—people will buy 'em when they can't afford roses." Domestic bulbs will continue to sell well, and there seems to be room now for good blooms in New York, but it's an open question as to where the little industry will go. Daffodil growing is, at best, a risky gamble, spiced with hard field work under adverse conditions. A far cry, it seems fair to say, from the "American Dream" that grew out of the great depression—but harsh realities are now upon us. It well may be, that the "sweat ethic" will return to our land, and "the tough will get going." All around us, we see intelligent young fellows (and their wives and kids) struggling with chain saws, splitting mauls, and pick-up trucks to cash in on the rising market for firewood. Perhaps, as material abundance decreases, the value of human resources will rise; and to those who find joy in physical labor, and whose spirits respond to the eternal productivity of our Earth, the daffodil will beckon.

But, for those of us who still recall the flavor of the sights, sounds, and people that enriched "flower season" in Virginia and Carolina, an era has ended. Still, habit—and dreams—die hard. In February, we contact our customers and pickers, check the equipment, and inventory supplies. In the cold silence of the packing shed, we reflect on the past, and dream of that fortune we're going to make—come blooming time!



MINIATURE DAFFODILS AND BLACK PUSSY WILLOW

POLLY BROOKS, *Richmond, Virginia*

Miniature daffodils teamed with the unusual and mysterious Black Pussy Willow proved to be a double eyecatcher at Virginia's Executive Mansion. The official residence of the Commonwealth's governors and their families since 1813 is the oldest house in the United States in continuous use by the governors. Four Presidents have lived here: Jefferson, Monroe, and Tyler as governors, and William Henry Harrison while his father Benjamin Harrison was governor.

The miniature daffodils, as well as the large ones, have become a regular in this old historic home seen and admired by many. Miniature daffodils used with the black pussy willow was the topic of much conversation last spring. I was delighted to tell about this unusual willow which brought me so much excitement and enjoyment when I bloomed it for the first time, never having seen it before and not knowing what it was like. It was described by a daffodil friend from Maine who sent me the cuttings as "black catkins tipped with red that look like Hessian soldiers." She wrote that she brought cuttings from England which she first saw at a Royal Horticultural Society Show in London. As the pussies age the yellow-green contrasts with the red creating a most unusual effect and complementing the yellow and green of the daffodils. Because my plants were yet small with only small short twigs bearing small catkins, I did not have enough to use with the larger daffodils. I hope to do so in 1981.

Arnoldia (Arnold Arboretum, Jan.-Feb. 1978) states that this *Salix melanostachys* has been cultivated for years by Japanese but that its origin is unknown. Their original stock came from Kalmthout Arboretum in Belgium in 1971. It is still rare here and not readily available unless you have a friend who can spare a cutting.

Interestingly, but not suprisingly, many daffodil growers grow other horticultural goodies as well as daffodils. Several years ago at a daffodil show I became re-acquainted with Rabbit's Foot Fern (*Daffodil Journal*, March 1975) which I find so very useful with miniature daffodils. I now use it year around in all manner of arranging flowers. I know of no other fern that does as well in epergnettes. Last August it came in handily in decorating for the wedding reception at the Mansion.

Try the black pussy willow with daffodils. You'll love it.

A MATTER OF INCHES

DAVE KARNSTEDT, W. St. Paul, Minnesota

(from Tete-a-tete, newsletter of the Daffodil Society of Minnesota, May, 1980)

Supposedly, it's the ill wind that, as it blows along, doesn't deliver at least some good, somewhere along its path. The summer and fall of 1976 in southwestern and central Minnesota were "dust bowl" dry. In July, it stopped raining, to be followed by the worst winter in a century and the earliest spring in three decades. As odd as it might seem in view of those conditions, I had the best daffodil season I've ever experienced in my garden.

In 1976, the fall rains never came and I found myself heeding Harry Tuggle's advice to give your daffodils one inch of water a week. That turned out to be sage advice when combined with the fortuitous occurrence of an unseasonably early spring.

My daffodil season began with *N. asturiensis* in late March, peaked in late April and provided me with tall stems and flowers of deep color, thick substance and exemplary smoothness. Normally, peak bloom is compressed into the third week of May. The 1977 spring, because the season was so early, was much cooler than usual and I didn't suffer the expected loss of color from heat and low humidity. I'm sure that I can attribute the wonderful performance of my flowers that spring to, in the main, all the water the previous autumn and early that spring, although the earliness of the season was a major contributing factor, too.

I've known of Harry's "Inch a Week Rule," but usually relied on natural rainfall with only an occasional supplement from the hose. With no rain in the autumn of 1976, all water applied to the daffodil beds was from sprinklers. In all, that water amounted to more than twenty inches.

The standout flower of the season was easily the Richardson 1 Y-Y Banbridge. I've grown it for many years, only to be disappointed each spring with small flowers and, as often as not, flat sided trumpets. On several occasions I nearly discarded it altogether, but I kept remembering the superb flowers of Banbridge I've seen, growing in Oregon. I continued to hope that maybe—just maybe—it'd be my turn next year!

That spring, I sincerely wished I had kept all those bulbs I'd given away, because Banbridge put on what can only be described as an Oscar-winning performance! Although only six bulbs long, the three-years-down row produced sixteen superb flowers—with the additional bonus of being first out in my main planting. Surrounded by inch wide deep blue-green foliage, the stout, two foot stems bore aloft the largest, smoothest, thickest-substanced, most brilliantly colored deep-golden yellow trumpets I've ever seen my plantings produce. Impressive? You bet they were! I feel they fully deserve some flowery descriptive prose, although I'm not sure that I would want to sit by and wait another twenty years for what just may turn out to have been a once-in-a-lifetime performance.

The autumn of 1977 has had record, or near record, amounts of rainfall. What results will be achieved next spring remain to be seen, of course.

If it's dry, you can believe I'll be pouring on the water! Sometimes, as I sit musing on daffodils during the winter months, I can almost see Harry's smiling face and hear his gentle admonishment, "Remember, outstanding performance is always a matter of inches!"

Rathowen daffodils



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DAFFODILS IN NEEDLEPOINT

BERNICE G. FORD, *Clifton Forge, Virginia*

Photos by DR. W. KENT FORD, JR.

My first piece of needlepoint was done when I was a bride many years ago. It was a French piece, double thread canvas with a painted design. All the threads for the design, some of them silk, came with the piece. The saleslady advised me to use the Continental stitch and showed me how simple it was. The color of the background was left for me to decide. Most of the needlepoint I had seen at that time was done with a black background so I selected black and have regretted this ever since. Now my fireside bench and matching footstool are a rusty black while the silk threads are still lovely in shade.

Later I learned the Basket Weave stitch and prefer it to any of the many other stitches. I have also learned that backgrounds are very important to show off the design. There are so many different shades of color to choose from.

When I became interested in putting daffodils on canvas, I could not find any in the needlework shops. I gave a cover of one of Richardson's catalogues to a shop owner who designed the pillow in picture number 1. The pillow in picture 2 is from a kit.

The bag in picture 3 was designed by The Jolly Needlewoman, Kenneth Pike, Chadd's Ford, Pa. The bag in picture 4 was from a local artist.

The bag for Laura Lee Ticknor was the first I ever tried on my own. The pictures of her favorite daffodils were cut out and transferred to the canvas. The wool used was as near the original color as possible. Doing it was the most fun and gave me the most pleasure because of the one who would carry the bag.



Figure 1

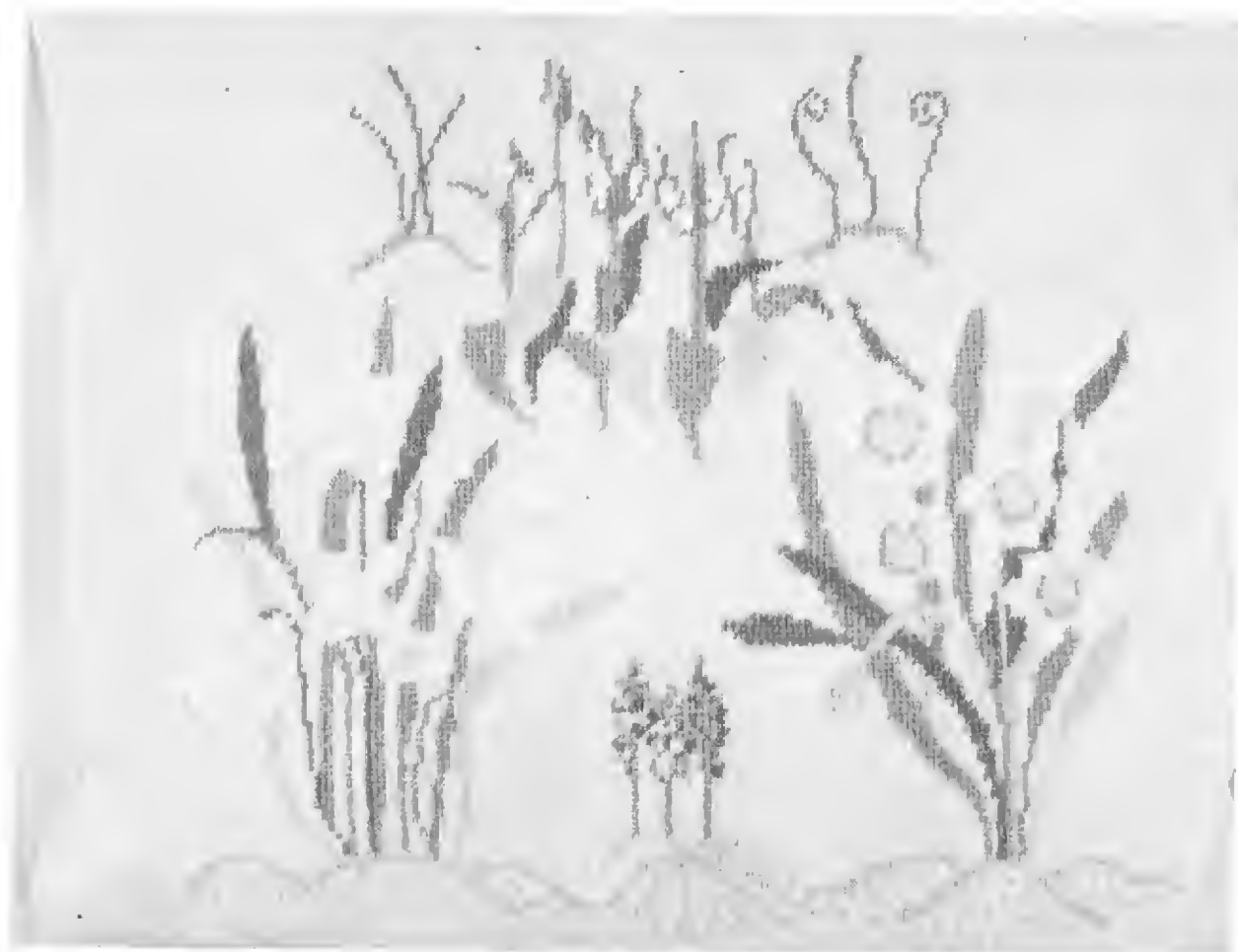


Figure 2



Figure 3



Figure 4

THE INCREDIBLE TALE OF THE DAFFODIL POCKETBOOK

LAURA LEE TICKNOR, *Tyner, North Carolina*

Photos by SUSAN TICKNOR

Several years ago we visited Bernice Ford in her home overnight and while sitting around the fireplace I admired the needlepoint piece on which she was working. The conversation went back and forth and she volunteered to design and make a needlepoint bag for me. I would select size, background color, and certain daffodils to be featured. Eventually I settled on Suzy (for obvious reasons), Rockall, Perimeter, Festivity, and Falstaff, all tried and true favorites of both Bill and me.

In time the piece was finished and to say I was overcome with the beauty and with the fact that it had been done just for me with such devotion and care is an understatement. I have carried the bag with great pride and delight on many occasions as some of you may have noticed. I have even been accused of being purse proud!

In the fall of 1978 the Middle Atlantic Region met in Williamsburg. Bill and I are always happy to accept an invitation to be with this group so we made our plans accordingly. Daffodil bag went into the suitcase, was carried, but then its adventures began. In packing up to go home on Sunday, somehow the bag was overlooked. I feel it must have slipped under the bed or behind a chair because it was not visible.

Several weeks later I looked for the bag to carry to a local party. It was not in its usual drawer, so the whole room was torn apart and searched, all closets and drawers in the house got a good turning out, even the suitcases carried to Williamsburg were checked again. No bag! I was broken hearted—and somewhat hysterical—but my main concern was how would I ever be able to explain to Bernice that I had lost my treasure.

All winter we talked about the bag, where was it, how could I have been so careless, and what on earth would I tell Bernice when we saw her again so soon?

On Valentine's Day a friend from Edenton called and said, "Laura Lee, I have the most incredible thing to ask you." She had a turquoise blue, needlepoint bag with daffodils and initials LLT in her hands as she was talking to me. My immediate reaction was, "Maxine, how on earth did you find my bag?" A couple of questions from her satisfied her that it was indeed my bag, although she felt sure even before she called that it was mine. She had seen it briefly a year before.

A bizarre tale unfolded. Over the previous Christmas holiday, a native of Edenton had gone to Florida. She liked hand made things and flea markets so when her daughter suggested they visit a Junior League sale she quickly agreed. Lo and behold, in St. Petersburg, Florida, she bought a beautiful needlepoint bag with daffodils on it. She brought her bargain home to Edenton and decided she really didn't want to carry it with those initials on it, so she took it to a friend who does needlepoint to see about having the initials covered in some way. Fortunately the friend didn't have the right color of magic marker so she went to my friend Maxine to talk about it.

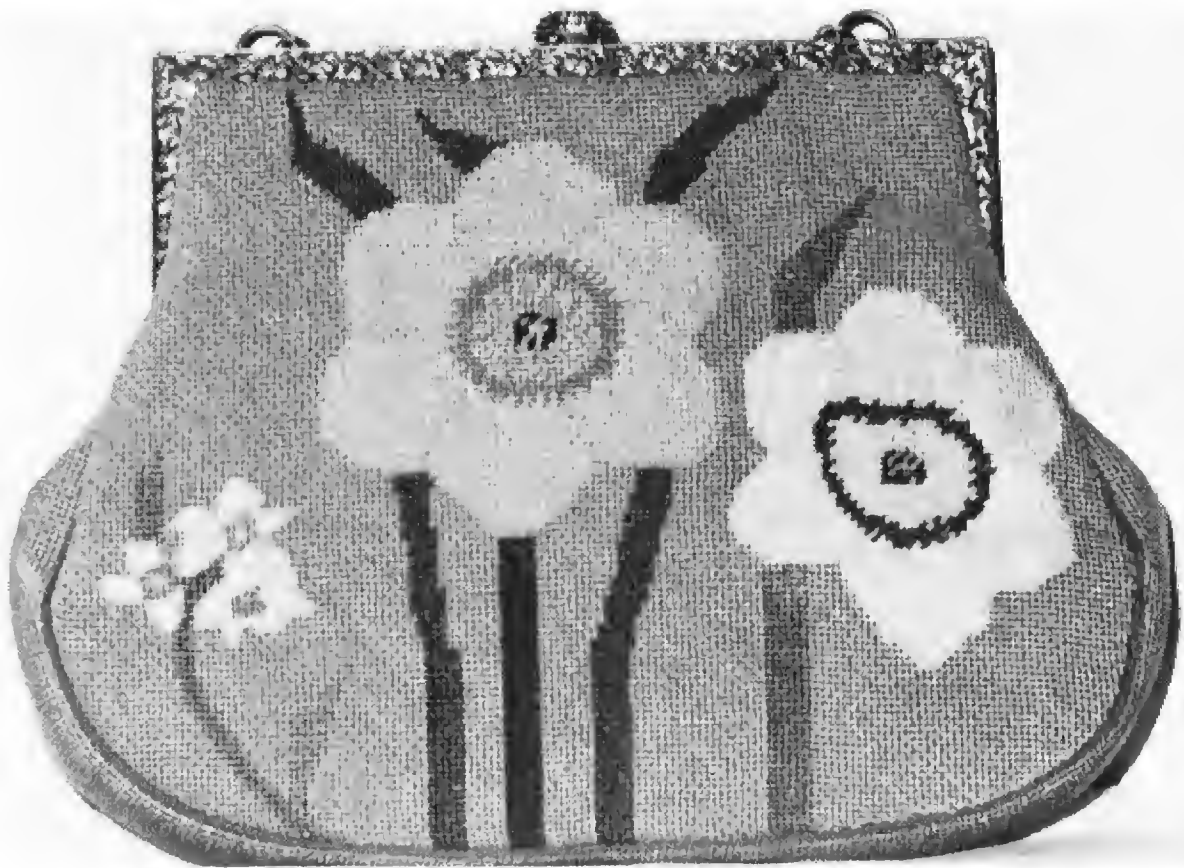
Maxine recognized the bag and called me. Think of it, though, a trip somehow from Williamsburg to Florida—how? the maid? the next occupant of the room?—then back to a town of 5,000, seventeen miles from our home. What are the odds against the bag traveling to Florida and somehow coming to Edenton, North Carolina? There has to be a guiding hand in there.

My first thought was to dash into town and claim my treasure but that was not yet to be. The person who had been asked to change the initials told me a little bit about the person who had brought the bag to her. When told that the bag in all likelihood belonged to someone out in the county, she bristled, "But it is mine now. Finders Keepers!." She thought a new kit could be bought and easily redone. Explanations that it was a one of a kind design seemed to fall on deaf ears.

A month passed, and many conversations ensued. Bill said I should face the woman and demand my property but I hate a scene so we bided our time. One evening as I was cooking supper the phone rang. An unfamiliar woman's voice said, "Is this Mrs. Ticknor who lives out in the county and grows daffodils?" I answered, "Yes," and she replied, "I think I have something of yours." I knew at once what she was talking about. We talked some more and she allowed as how I could have the bag whenever I wanted to come pick it up. I said we would be there in two hours. Bill said we should have gone at once—dinner could wait. I could hardly believe my ears!

I guess we ate dinner but I know we were on her doorstep at the time I had said. When she opened the door, I could see the bag on the table. Almost too good to be true!

She told me of buying it in Florida but refused to tell me what she had paid for it saying, "You know how cheap things are at flea markets and you probably would be offended." Eventually she agreed to a reward and I left with my bag.



A couple of weeks later after church someone I knew only casually came up to me and asked, "Did you get your needlepoint bag back?" I answered, "Yes," and she said, "Good." It seems the bag had been carried to a local bridge club and this lady recognized the bag, having seen it and commented on it at a party. Being very forthright she said "How and where did you get Mrs. Ticknor's bag?" Apparently that was all that was needed to return the bag to me. The bag was in perfect condition but I wish it could talk and tell us of its adventures.

BREEDING OF DAFFODILS AND GAMECOCKS COMPARED

John Lea's article on breeding daffodils, in the June issue of the *Journal*, was fascinating to me for the parallels between his breeding of daffodils and the breeding of gamefowl. I had known of course that genetics is much the same for plants and animals, but it was amazing to see Mr. Lea itemize points of breeding daffodils which are precisely those advocated by the best gamefowl breeders. Here are some of the similarities:

(1) Gamefowl breeders agree generally with Mr. Lea's opinion that the best results come when there is a common parent somewhere in both sides of the pedigree—that a certain amount of line breeding or inbreeding is desirable. The exception to this is when an outcross is made, in which instance the consensus is that at least one side of the pedigree should be closely bred (inbred).

(2) Mr. Lea as a rule uses his seedlings for parent, not the prize-winning cultivars which have a long history of winning on the show benches. In gamefowl breeding, we have found that young stock produces better offspring than do older parents, with an individual chicken becoming less valuable as a brood parent with each passing year. Youth on at least one side of a mating is considered essential among gamefowl breeders.

(3) Gamefowl breeders are in total agreement that choosing the right individual to breed, not one of its full brothers, is the height of the art of producing good fowl. We want all of the family of the individual selected for the brood pen to be of high quality. (We do not breed an ace cock whose brothers did not show high performance.) But we find repeatedly that full brothers produce differently, even when bred to the same hens, and even in a closely bred family.

(4) The similarity which surprised me most is Mr. Lea's experience in finding that the same parents produce a higher standard of daffodils one year than they do another year. We see this happening in our breeding of gamefowl and cannot explain it. I really had not expected this incomprehensible truth of gamefowl breeding to apply to daffodil breeding.

I feel that principles of breeding which have been found to apply to both daffodils and gamefowl must be basic ones to genetics and that to deviate far from them is courting failure.

—GEORGE W. WOOD, JR., *Northport, Alabama*

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COLOR CODING RE-VISITED

TOM D. THROCKMORTON, *Des Moines, Iowa*

Currently the great and near-great of American Daffodildom are engaged in re-writing the *Handbook for Exhibiting and Judging Daffodils*. And in certain respects, the verb “engaged” is more like “in battle” and not like “in marriage.” The question seems to revolve about a requirement to “adequately label” all entries in certain classes of daffodil shows.

This rule doesn't bother me a bit, since Jean and I can seldom find a daffodil competition which is in step with our season. However, I do realize some of the frustrations of the major exhibitor with a station wagon filled with daffodils, staging materials to be located, blooms to be selected and manicured to perfection—and a jillion name and classification cards to be made out and properly distributed—all the while working against time and haunted by the thought of a prize winning exhibit invalidated by a spelling error or goof-up in classification.

Then, there are the judges: working against a tight schedule, confronted by a choice amongst varieties, several of which may be unfamiliar. To stop the proceedings and thumb through *Daffodils To Show and Grow* is aggravating, time consuming, and entirely unnecessary if the entrant had only identified his bloom with something other than a name. It's the exhibitor's flower and, by the ghost of old Engleheart, he or she should be able to identify it before exhibiting it.

And that's about how things stand!

Now, as they say in music, here is the time for a reprise.

In 1960 a sort of color-code was worked out to provide a description of daffodils to a color blind computer. The “classification” implicitly identified the color of the perianth; the color-code, in a general way, described the corona. This worked very nicely and allowed the computer to provide a fairly adequate color picture of each cultivar. In 1969 I presented this material to an audience of RHS daffodil aficionados. They stifled yawns politely and in nowise allowed the color-coding to intrude upon their digestions. Perhaps the whole idea would just go away!

Nonetheless, color-coding just kept turning up, as practical ideas often do. Once again in London, in 1973, the RHS Daffodil Committee considered color-coding and agreed to its adoption as ancillary to the classification—but in nowise as a part of the classification. It was specifically spelled out, at that time, that the color-code need not be required at daffodil shows, except as the Show Chairman might decree. The modification made in the color-code by the RHS made it quite awkward and not a very useful item. For instance, Arctic Gold was 1AYYY.

Then Bill Ticknor got into the act and published a plea for a simplified classification system. Since the computer was already based on a classification any normal ten year-old child could readily understand, it was submitted. In truth, it merely substituted a perianth color for the previous meaningless A's, B's, C's, etc. and appended a simplified color-code for the corona. Now Arctic Gold became 1Y-Y.

This new classification, together with some fiddling among the doubles and poets, was approved as the official Classification of Daffodils by the RHS and is used as such by its registry. So, in fact, there is no longer an appended color-code to be ignored at the will and pleasure of a Show Chairman.

Looking at this whole affair from a little distance, it seems to me that we have both simplified and perhaps complicated the life of the daffodil exhibitor. Now he has a meaningful classification which tells him something about the flower he is buying or exhibiting. And yet his existence is complicated by having to take enough time to identify each of his show pieces properly.

As for judges, they become frustrated, too. Weather, culture, and genetic factors make strange changes in daffodil colors—and against what standard do they judge a particular entry? It's nice if the entry tag reminds them; or do they stop and look it up?

The saints preserve me from having to make the ultimate decision in this matter. There are even some who might hint that I've caused trouble enough. However, from a distant view, it seems to me that an exhibit in single or three stem classes might well be properly classified by the exhibitor—these classes are likely to contain the newest and most novel things. Such blooms are of greatest interest to the show-goer, and one has only to look about an exhibit hall to see the making of next fall's daffodil order list.

On the other hand, in collections of more than three stems, the competition, while no less keen, is of lesser interest to those of us trying to identify new or sought-after varieties. Perhaps in these larger collections, the simple identification by name is enough. Most such exhibition classes place ready-made constraints upon division and upon perianth color; thus, the classification is less needed, even though blooms may differ widely.

But finally, I must remind you that there is no longer any such thing as a "color-code" in the daffodil world. The "color-code" died in 1975 when the RHS approved the current daffodil classification. Thus, color-coding is out! The problem now is the simple one of whether or not to classify blooms in a daffodil show. I'm certainly glad I don't have to decide *that one!*

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CHARLES APPLEGATE, *Perrysville, Ohio*

(from *Narcissus Notes*, newsletter of the Midwest Region, March, 1980)

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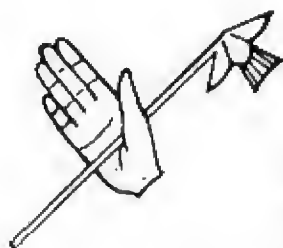
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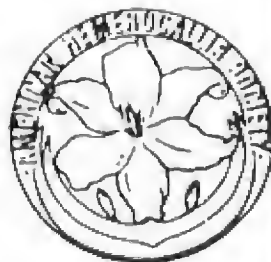
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HYBRIDIZING

(What follows is a transcript of a phone conversation between Bill Pannill and Johnny Tarver which Dr. Tarver presented at the Middle Atlantic Regional Meeting in 1978. Thanks are due Susan Ticknor for transcribing it.—Ed.)

TARVER: Let's talk about hybridizing. What's the difference, if any, between cross-pollinating and hybridizing? I know the people that grow roses talk about hybridizing and we usually talk about cross-pollinating.

PANNILL: Well, I think cross-pollinating is just the act of hybridizing, the method by which you hybridize. That would be my definition of it, because actually sometimes you don't cross-pollinate, you just self-pollinate, and that's hybridizing, too.

T: Right. How do you go about it, Bill?

P: Well, I use tweezers to pull off the anthers and put them in a capsule which I put in those little coin envelopes, labeled as to what each capsule is. Then I use a brush to put the pollen from the capsules on to the stigmas of the other flower. But that's just what I do generally. If I'm out at the right time of the day, and I see two flowers I want to cross, I might take the tweezers, pull the anthers off, and rub it on four or five blooms that I want to use to make that one cross. I don't need the pollen for other blooms, so I don't go through putting it in the capsule and all that.

T: You said "If I'm out at the right time of the day . . ."

P: Now, I think you have better luck if you cross them when the stigma is wet and sticky. Your pollen will stay on better, and the flowers seem to be ripe for the pollen grains to go down to the ovary. I've heard other people say that when the bees fly, that's the right time. Well, the bees are out there because there's juice and nectar on a lot of the flowers, and when this nectar is on the end of the stigma, that's the time the pollen will hold on to it, and you can cake it on better. But I wouldn't say that that is the only time to do it.

T: Would you say that the best time is usually midday on a hot day?

P: Well, it doesn't have to be too hot a day. I would say it's not as much the time of day or temperature, as it is the age of the flower. When the bloom first opens, it very seldom has that nectar, and it has to mature a little before the stigma seems to get ready. Then once the sun has hit it after it's been that way it forms sort of a scab on it, and I don't think you have much luck after that scab forms. You might pull it off. Some people have even used a razor blade to cut the scab off, put a drop of honey or syrup on there and then put the pollen on that. But I think that's a lot of trouble, and usually when I'm pollinating I get almost to where I hope they don't set seed. You know you're going to have so many seed and so many seedlings coming along, that you really are asking for divine guidance and saying, "Lord, let this one set if it's going to be something good, but if it won't be, don't let it set." So I've made crosses that I was almost sure wouldn't set, and they didn't, but I went ahead and made them anyhow.

Now, out in Oregon, on the crosses I've made at Murray Evans's, I'd get much better results, even though I might have made them while it was raining. You might have to do that out there, because you don't get all that good weather, although he waits until he does get some good weather. His flowers will keep a week or so in good condition, so you can pollinate them any time within that week; whereas here in Virginia, between the hot weather and the dry weather, I'd say we're lucky if we can do it within one or two days.

T: So usually, in our part of the country, what would you say that the best time would be after the bloom has opened—maybe a day and a half, two days?

P: A day and a half or two days, I'd say would be the best.

T: Of crosses that set, what is your percentage, roughly?

P: Now, normally I cross anywhere from three to twelve or fourteen blooms. My percentage of ones that actually give me any seed would be somewhere around thirty to forty percent. It may get as high as 50%. Some years are better than others. But that doesn't mean that if I made a cross of twelve, that all of them might set seed. I might get eight out of the twelve. But usually if one of them does, most of them do, and some cultivars do much better than others. I might use pollen that's no good and make fifteen crosses with that pollen and none of it would set.

T: You mentioned taking off the anthers, putting them in a capsule, and then into an envelope. Now, if you especially want to use that pollen, how long have you found that it's usually good for, and do you take any special steps to preserve it?

P: Well, originally I used a dessicator, refrigerated it, and I didn't really notice any difference than if I just left it in the basement in a box where it would dry, and didn't let it sit out in the sun to get too hot. I'd say it would be good for two or three weeks. Sometimes people freeze it and keep it for the next year and say it's still good. But that could save a lot of time and trouble, because very often at the end of the season when I'm picking the pods, I see that of all the crosses with, for example, Pollen "X", none of them set, so it had to be the pollen. Then I'd find that another pollen I used, maybe I made ten crosses with it and eight of them set, then I knew the pollen was good. It just happened in two of them that I got there at the wrong time or things weren't right at seed time.

T: You know, through your generosity, I've been using the pollen from your show flowers for the last two years.

P: Well you've said you had fair luck with them. This disputes one thing that has always been told us, and that is this thing of having to keep your pollen so dry. As you know from those shows, those flowers were refrigerated and misted every day in a damp refrigerator before the show. Then at the show they were misted six or seven times. And yet the pollen—enough of the grains—was still good to give you some seed set, right?

T: Right. Well I have used your pollen up to three or four weeks after the show, without refrigeration or dessication, and gotten very good results as compared to the other crosses I've made from flowers in my garden. I get a much better percentage from your pollen. Maybe your exceptional flowers just produce very fertile pollen.

P: Well, that could very well be. Now there again, Dr. Bender once gave a little talk, and he pointed to a field at his farm in which he'd planted a bunch of daffodils that were leftovers from his garden at home. The field had been in corn the year before, and had some kind of insecticide or herbicide on it that really killed the daffodils after the first year. Well, he said, with Festivity, twenty-five of twenty-six blooms set seed, open-pollinated. He didn't pollinate any of them, but twenty-five of them set seed. And then the bulb died, which I've heard of before, too. Often an injured bulb will set seed. It's nature's way of saying this year the bulb is going to die, therefore it had better propagate itself through seed. So you normally don't get much open-pollinated seed and we have hardly any. Maybe out of a thousand flowers two of them open-

pollinate around here. So that's another reason I don't worry about de-anthering the ones that I pollinate, and I don't worry about covering them up to keep a bee or something from getting to them, because I have spiders in almost every daffodil that blooms and those spiders work back and forth fusing the pollen from itself from the anther to the stigma and I don't get seed from that.

Also I've said this before, but I think it's important, and that is that most people agree that daffodils are self-sterile. If you want to self a flower you get pollen from one next to it, don't get it from the same bloom. Get the same cultivar but get a different plant. And for some reason that gives you much better results than if you try to self it. Many times I've had a new flower, like Sabine Hay, that I didn't have anything to put on it, so I tried to put it on itself and I've never gotten any seed that way. I'm not saying it won't do it, but I've never gotten any seed using the same bloom on itself. I've gotten plenty of seed using another bloom of the same flower, which again gets back to that it's too much trouble to de-anther the flowers. The only time I de-anther them is when I need the anthers for pollen.

T: And you do not use any protection for cross-pollination?

P: No, no protection. The only time I've ever used anything like that would have been when I'd have to be out of town during the collecting time, when the flower was getting ripe. I have used a nylon scarf cut into little squares and tied around a pod so that if it popped open while I was gone the seed wouldn't fall on the ground.

T: Right. But that's for catching seed, not preventing open-pollination. Bill, you mentioned using a brush at times to apply the pollen. After you make one cross . . .

P: I lick it.

T: You lick it. Oh. How does it taste?

P: I don't taste it. I just clean it off in my mouth and then I've got several brushes, so I put it back in my pocket and try to use a dry brush each time.

T: Ok, about how many brushes are you carrying around with you?

P: Oh, two or three, and they dry fairly fast. And if they don't it doesn't really matter, because the stigma is damp when you put the pollen on, and you need some dampness to get the pollen grains to swell and grow.

T: Well, I've been using one brush and taking along a glass of water, and rinsing it out each time, so my brush was always wet.

P: I use real small brushes and you can squeeze the water out of it. I don't think it really matters; if it's wet, it'll help you pick up the pollen.

T: It's easier to pick up the pollen, but I get to wondering, "Am I getting three or four kinds of pollen mixed up together?"

P: Well, I don't think you are, not if you wash it real good and theoretically that water is supposed to kill the pollen anyway.

T: Oh, is it?

P: Well, you know you're supposed to keep the pollen dry. I don't mean it kills it like a disinfectant would or something like that.

T: But if I pick up pollen to put on another daffodil and the brush itself is wet and some water gets on there, it might not be so good. Would I be better off with a dry brush?

P: Well, possibly. However, there again I get back to that old feeling that if that happens, it was meant to happen, and you might get a better flower than if the pollen was the one you meant to use. I realize it's nice to know exactly what pollen you're using, but a stray grain that got on there somehow may set

a seed, and you might end up with a great flower from that one seed. It isn't going to make the computer blow up if it got the wrong parentage. I guess I'm saying, what difference does it make?

T: Right. How long does it usually take, where you live, for the seed pods to ripen and produce seeds, and how do you know it's the right time?

P: Well, I usually make my crosses anywhere from March 20 up to the first week in April. That's usually my season. I usually have finished collecting the pods by the first or second of June. I'll start collecting them over a period of ten days, from the third week in May through the first of June. They turn sort of yellow, and the old flower part will fall off if you touch it. By that time usually you can shake the pods and hear the seeds inside. I would pick them then and go ahead and let them continue to ripen inside where they won't fall on the ground if it split open. If you were to burst them open at that time, you would find that some of the seeds were loose, but you would have others that were still attached.

T: Would you describe what a mature seed looks like?

P: It's black, and not always shiny, because it's shiny when it first ripens, but after a day or two it will get a dull glossy look to it. But you get some that have sort of a grayish-white look, and they're not going to germinate. They came loose.

T: So those are the eggs that did not become fertile to produce seeds.

P: No, the ones that don't become fertile turn into that little powder that you get, the tiny white stuff. These became fertile but didn't go through the whole term. You might say they miscarried.

T: But the only ones you bother to plant are the round black ones.

P: Some of them aren't actually round. Some of them might be almost in a pyramid shape or something, and that's because they were crowded into the pod, especially some of the jonquils. If you have a pod that's really full of seed you get a lot of distortion. But the little flat black ones that have no body to them, I don't bother to plant those, although it doesn't hurt to drop them in there.

T: What do you put the pods in, envelopes?

P: It depends. I might put them in a paper cup or a box. It depends on how many pods I've got. If I've got about two or three I put them in an envelope. If I've got twelve or fourteen, I'll put them in a shotgun shell box or a paper cup, but I put something in there to tell me what they are, of course.

T: A number or something, probably.

P: I usually write the cross on them. Now that's something else I don't do. I don't tag them at all when I make the cross. I don't put any tags on them. What I do is write in my book because all my daffodils are planted in beds and therefore I write in the book Bed 2, Row 14, and then I write Kilworth x Arbar, first four blooms.

T: So your beds are laid out in such an organized fashion and so well mapped that you know where everything is.

P: Where everything is, so I don't have to tag them.

T: I wish I could say that! I have to put tags on mine. Let's say you've finished harvesting your seeds. When do you plant them and what do you plant them in?

P: Well, if I were planting them here I would plant them the day or the week that I harvest them. When I did plant them here I would plant them in a flat made out of redwood that was about eight inches deep, and I'd try to get about eight to twelve inches deep. I'd try to get at least six inches or more

below them and then I'd just put the seeds on the top of that soil in a very organized way, because I'd want to plant as many as I could in that space, about an inch apart. Then I'd cover that with about a half inch of soil and keep them damp. I'd use this potting soil that you buy at the store, and the reason I wanted to leave six inches under them was, if I left them in there for three years, by the third year some of them would have been pulled all the way down to the bottom. You see they've got that one big root in the center that goes down and pulls them down. It's almost as big as the bulb and it pulls them down each year, so you have to plant them shallow, so when you dig them, they'll be four or five inches down.

T: So you do not recommend the regular florist tray, you recommend putting them in the ground.

P: Well, it depends on when you're going to transplant them.

T: It's a lot less work than messing with the florist trays, isn't it?

P: Are you talking about the flats like I was just talking about?

T: No, I'm talking about something that has a bottom on it.

P: These had a bottom on it.

T: Oh, they did?

P: Yeah.

T: Well, what I'm thinking about is what the nurseries sell, about two inches deep.

P: Well, you're going to have to practically transplant them the first or second year because they're not going to have any place for their roots to go.

T: Are you usually able to wait until you have a bloom before transplanting?

P: No, they definitely need transplanting by the third year, and what we do is about the tenth of June I mail my seed out to Murray and he'll plant them anytime. He'll plant them sometime in the summer. He plants them directly into the field, but not where they're going to bloom. He makes a bed and then plants them outside in a fairly thick row. Then he leaves them down two years. After that, he lines them out in the field and lets them bloom there. He gets a little bloom, just a very little, the fourth year. He gets quite a bit of bloom the fifth year, and by the sixth year he figures they've all bloomed, and any we haven't selected by then he gets rid of.

T: Bill, when you were talking about planting them in a flat eight to twelve inches deep, it sounded to me like you carefully placed the seeds on top of the soil.

P: What I did was pack the soil down and actually use tweezers to put the seed down in there.

T: Ok, so you didn't dig a hole to put the seed in.

P: No, because then, after I put the seed on the top of the thing and got it just right, then I put another half inch of dirt on it.

T: Alright now . . .

P: And I had to keep these protected from squirrels, moles, birds, and things like that.

T: Would you put a mulch on top of it then?

P: No, I just put a wire frame over the tops of them.

T: And let it go to weeds?

P: Well, no, you see that potting soil is sterilized so you don't get many weeds the first or second year. Then in the third year you're going to dig them anyhow. I try to keep the weeds out of them, you've got to pull the weeds out before they make the big roots or you'll pull up the little bulblets with them.

T: I've got a problem. I've got a big flat of seeds and it's covered over with weeds.

P: Well, I'd cut the weeds as close as I could and try to mulch them and keep them out. What Murray does is to put a heavy decomposed sawdust mulch on his. They don't recommend that around here because they say it robs your soil of nitrogen, but he does that to keep weeds down, and so when he does get small weeds he can just hand weed them and pull them out.

T: What about fertilizing the seed?

P: There again, I never fertilize them. He uses a fertilizer out there, something like this "Blue Whale" on the seed beds. I haven't used any fertilizer on this other stuff because the soil is supposed to be enriched.

T: Last summer, I visited someone and they said they were using your method of mulching their regular beds, not the seeds, and that was the "weed mulch."

P: For during the summer, yes. I've got the pine needles on them during the winter and spring, blooming season, and I let them grow up in weeds and pull the weeds off in September, and fertilize them. I put on enough fertilizer to make up for what the weeds took out.

T: If somebody has not made any crosses yet, and they don't have a lot of expensive bulbs, what reasonably available cultivars would you suggest for a beginner in hybridizing?

P: Well, I'd say any of them are good, because most of the ones you get today have many generations behind them of things that have proven good in later progeny. But what I would suggest to someone who's got limited space and little knowledge of it is to try some crazy crosses. That is, say a pink and a reverse bicolor, and maybe even a pink and a red cup. You get some bad ones, but you might get some good ones. I'd also suggest to try using the species on the standard cultivars. Most of the hybridizers, except for Mitsch, don't do any crossing with the species. So you're not getting too many cyclamineus, jonquils, or triandrus.

T: Are you saying use the species for the male or the female?

P: Always for the male, never for the female. The only time you want to use them for the female is when you self it to get more seed to get more species.

T: I had tried species, and was doing it exactly the opposite of what you just said, and had no results.

P: Well, if you get seed, most of them are going to be self-seed. You get very little doing it that way. The other thing is, to use the best quality flower they've got, not necessarily the most expensive one, even though they only have two or three blooms of it, rather than use Mount Hood or something. If you have two blooms of Queenscourt, use those two blooms and forget the row of Mount Hood. By the same token, if you've got Rockall, use your two blooms of Rockall rather than twelve blooms of Kilworth, because Rockall is already an improvement on Kilworth. So don't bother to go back to the old crosses that people did thirty or forty years ago. That's one advantage that daffodil growers have, that they can use the new flowers and they're just as well off as the big hybridizer, because that's all he's got to work with, too. They might not have as many of the new ones as he does, but to go back would be a waste of time.

T: When it comes to using cultivars like Rockall, the perfection of the individual bloom itself that you're going to use for the cross doesn't matter. It's a matter of good cultivars, right?

P: When you're dealing with Rockall, or any other of the named cultivars, that doesn't make any difference. However, when you're dealing with the species, you've got to remember that each clone or each plant has somewhat different qualities than the one right next to it. If you have a whole row of

jonquilla and inspect it, you'll find that on some of them the petals overlap, on some the petals are rounder than others, and some will have five blooms to the stem, where others will have two blooms. When you're dealing with the species, use your best blooms, the ones that have the qualities you want, such as five flowers to the stem or rounded petals. But when you're dealing with the regular cultivars, an ugly bloom is just as good as a pretty bloom. They've got the same genes.

T: Bill, I sure do appreciate it. You've done fantastic work in hybridizing, obviously. I've been tremendously impressed.

P: Well, I've had a lot of fun doing it. I don't know how "fantastic" it is, but it's a lot of fun entering a show with nothing but your own flowers, and having them compete with Richardson's and Mitsch's, and come out ahead. To begin with, I think it's fun taking one of theirs and putting it in the show and competing with others and winning. This is just another step forward. So, now that I've won with all my own seedlings, the next thing I want to do is win a Carey Quinn with all my own *named* varieties. Nothing but my own named and registered varieties in the Quinn, that's my next project, which is several years away.

T: I have especially admired your whites, and this year I admired your yellow-pinks. Is there any other particular direction in hybridizing that you're going after?

P: Well, no, what I've done is just shoot with a shotgun, as it were, and the reason I did that, is just what I said about the Quinn class. My feeling is, if you're going to enter a Quinn class, you've got to have something in every division. So I've actually registered flowers in every division, except, of course, Division 10. I don't fool with species like I used to, because I've got enough of those coming on, enough of them in my arsenal, that I don't need any more. In fact, this year, I didn't make any crosses at all. I don't plan to quit, but this year I was in Oregon during my blooming season here. We were late here and they were early in Oregon, so I had to pick, and I felt I owed it to Murray to go out there and eliminate things so he wouldn't have to keep growing them.

T: But you are going to continue.

P: Yes, I'll do some more next year.

T: Bill, I sure do appreciate it, and I've enjoyed it.

BOARD OF DIRECTORS MEETING, SEPTEMBER 27, 1980

(Abridged from the report of the Secretary)

Forty-three directors were present.

Mr. Knierim, treasurer, reported a sound financial picture. \$10,000 was received shortly after the March meeting as a bequest from the estate of John and Betty Larus. Charles Larus had stated that the bequest was not limited, but he hoped that it would be used for research.

EXECUTIVE DIRECTORS' REPORT: Mr. Ticknor reported that the Society is strong and healthy both in regards to finances and membership. He emphasized again that our basic income remains constant while basic costs are rising sharply due to inflation. Regional Reports were received from all nine regions.

COMMITTEE REPORTS:

AWARDS: This report will come under old business.

BREEDING AND SELECTION: Dr. Bender reported on the results of a meeting of twenty-seven hybridizers in Memphis. The following conclusions were reached: 1) The present framework for naming and registering new cultivars is adequate and workable. 2) The increase in registrations is indicative of increased interest and activity in hybridizing. 3) There is no way to prevent registration of "phantom names." 4) There

should be no double standard for judging daffodil seedlings in a show. The standard scale of points should be used and "distinction" should be expunged from judgment for the Rose Ribbon. 5) All hybridizers make mistakes. Another meeting will be held at 7:30 a.m. Friday during the California convention.

CLASSIFICATION: Mrs. Anthony consulted with her committee about proposed changes in color codes.

DATA BANK: Dr. Throckmorton reported that the Data Bank had been updated on September 20. All doubles have been turned into two-letter codes. The chromosome count has been dropped from the bank but is still in the computer. V's have been added. The bank states: "V is a symbol that denotes variation. It is not a part of the color code . . ." *Daffodils to Show and Grow and Abridged Classified List* will be put out with the cooperation of the British.

EDITOR OF JOURNAL: In the future *Journals* will be sent without envelopes. Damaged *Journals* will be replaced. The Editor requested copies of all RVP Newsletters and talks given at Regional Meetings. Mrs. Gripshover stated that printing costs continue to rise. She moved that overseas dues be raised to the same as domestic dues. Dr. Throckmorton seconded. The motion was defeated.

HEALTH AND CULTURE: Mr. Wheeler reported on the correct procedure to follow in dealing with suspected health problems: the sending of questionable materials to state and USDA specialists.

JUDGES: Mrs. Barnes reported that the Society currently lists 287 Accredited Judges, 25 newly Accredited Judges, 75 Student Judges, and 3 Accredited Judges Retired.

LIBRARY: Mrs. Bloomer sent a report listing quotes for binding the ADS *Journals*. Expressing confidence in the Librarian, the Board voted to leave the decision to the Library Chairman to select the bindery and arrange to have the work done.

MEMBERSHIP: Mrs. Armstrong reported a net gain of 61 members since the last Board meeting to a total of 1584. She emphasized that the Society has problems in retaining old members, not in attracting new ones.

MINIATURES: Mrs. Macneale reported on changes to the Approved List of Miniatures.

PHOTOGRAPHY: Mrs. Stanford thanked Mr. Knierim for 165 beautiful slides made at shows in 1980. These will update "Novelties" and "Show Winners" sets. She has also received slides from Joy Mackinney, George Tarry, and Louise Hardison.

PUBLICATIONS: Mrs. Cartwright reported receiving advertising inquiries from companies not directly involved with daffodil culture. The companies were thanked for their interest and turned down. Future projects include *Daffodils to Show and Grow and Abridged Classified List* and the revised *Handbook for Exhibiting and Judging Daffodils*.

PUBLIC RELATIONS: Mrs. Perry enumerated events that have taken place since the Board meeting in Memphis. Burpees and deJager have complied with her request for correct classification and nomenclature.

REGISTRATION: Mrs. Anderson sent in a report stating that six breeders had registered 29 new cultivars.

ROUND ROBINS: Mr. Ezell spoke of five robins which now pass through his hands and indicated that two more are probably in existence. The most successful robins seem to be those in which participants are bound together by a common interest. He will try to form a robin of veterans and novices and perhaps several others. Problems seem to be length of time to circulate, and loss.

SCHOOLS: Mrs. Yerger reported on the various schools which were offered in different areas last spring. Of the 48 students who took Course I in spring of 1978, 25 passed Course III in 1980.

SYMPOSIUM: Mrs. Moore thanked all who submitted reports and encouraged others to submit data next spring.

TEST GARDENS: Mrs. Pardue detailed the expanding test garden program. (See December 1980 *Daffodil Journal*.)

OLD BUSINESS:

NOMINATING COMMITTEE: Mrs. Bozievich announced that Mrs. Dean has asked to be replaced as chairman of the Nominating Committee. She is willing to serve as a committee member. Mrs. Cox, already a member of the committee, has agreed to serve as chairman.

SPECIAL RULES FOR NATIONAL SHOWS: Mrs. Lee's "Proposed Rules for National Shows" were adopted by the Board. The rules are as follows: 1) The chairman of each National ADS Show should have a copy of the "Procedure for Obtaining Awards from American Daffodil Society, Inc." and the supplement pertaining to National Shows. 2) When National Shows are held in a place where there are few members who might show and/or when the show is particularly early for many members to take flowers, a variance from the ADS Awards Chairman might be obtained for eliminating certain classes normally required. (This has been done when the Show was held in Oregon.) 3) Student Judges may judge in National Shows if they are used *in addition to* three Accredited Judges. *However, they shall not judge on a panel judging the awards and trophies only available for National Shows, the Quinn, Watrous, Larus, and Mitsch awards and trophies. 4) Foreign growers may judge in a National Show with two ADS Accredited Judges, i.e. one foreign grower and two ADS Accredited Judges per panel. They shall NOT judge the Quinn or Watrous. 5) Judges MUST be invited to judge a National Show well in advance of the show date, not the day before, or the morning of, the show date. It is recognized that sometimes one or possibly two judges may not show up and have to be replaced quickly and as unobtrusively as possible. *The ADS Procedure states that there must be a panel of three Accredited Judges for all classes with ADS Medals or Trophies.

NEW BUSINESS:

BUDGET: Mrs. Hardison projected an income of \$18,100 for 1981 and expenses of \$19,466.

REFRESHER COURSE FOR ACCREDITED JUDGES: All Accredited Judges are required to renew their certificates every three years. An extension of one year may be granted in an emergency if such an extension is requested before the three year period lapses. Extension requests must be made to the Chairman of Judges. A judge may audit any one of the three judging schools or attend any special refresher given by an approved instructor or a specialist in his/her field. The refresher may be given at a national, regional, or state meeting or even at a meeting sponsored by a club. When a judging certificate is allowed to lapse, it may be renewed by taking one of the three schools and point scoring.

AWARDS FOR DAFFODILS IN THE GARDEN: Mrs. Bozievich stated that a committee chaired by Joy and Bill Mackinney and including Ruth Pardue, Jack Romine, and Cathy Riley has been selected to study the possibility of creating an award to be given annually to a daffodil which has proven its worth as an outstanding plant and flower. The award would be known as the John and Gertrude Wister Award. Details will be brought to the Board meeting in California.

HANDBOOK REVISION: A lengthy discussion on proposed changes ensued. Since time did not permit a complete discussion, Mrs. Bozievich asked that each Board member send comments to her so that these might be gathered together by Mr. Anthony for further discussion in California in the spring.

LARUS BEQUEST: Mrs. Bozievich said that the Executive Committee and three other people appointed by the president would determine the use of the income. Mr. Wheeler moved that the bequest be known as the Betty and John Larus Educational Research Fund. Motion carried. Dr. Throckmorton suggested that other contributions could be made to the fund. Mr. Knierim suggested that the surpluses from the Boston and Memphis conventions be placed in this educational and research fund. Motion carried.

CHANGES IN THE SCHOOLS' PROCEDURES: Mrs. Yerger requested several changes in procedures.

FALL BOARD MEETING: Mrs. Shryoc invited the Board to Dallas, Texas, on October 23-24, 1981, to be hosted by the Texas Daffodil Society. The Board accepted with thanks.

Going round and round all alone? Get yourself organized. Join a Round Robin.

1981 SHOW DATES

MRS. PHIL LEE, *Awards Chairman*

- March 14-15 - Fortuna, California—Fortuna Garden Club at the Fortuna Monday Club, 610 Main St.; information: Mrs. Mary Lou VanDeventer, 366 Garland Ave., Fortuna, CA 95540.
- March 14-15 - La Canada, California—Pacific Regional and Silver Anniversary Show by the Southern California Daffodil Society at Descanso Gardens, 1419 Descanso Dr.; information: Jay Pengra, 959 St. Katherine Dr., Flintridge, CA 91011.
- March 20 - Dallas Texas—Southwest Regional show by the Texas Daffodil Society at the Garden Center, Fair Park; information: Mrs. Royal A. Ferris, Jr., 4125 Turtle Creek, Dallas, Texas 75219
- March 21-22 - Ross, California—by the Northern California Daffodil Society at the Marin Art and Garden Center, Sir Francis Drake Blvd.; information: Robert Spotts, 3934 LaColina Rd., El Sobrante, CA 94803.
- March 21-22 - Hernando, Mississippi—by the Garden Study Club of Hernando at the National Guard Armory, McCracken Rd.; information: Mrs. Morris Lee Scott, 3067 Laughter Rd., S., Hernando, MS 39632.
- March 26 - Newport Beach, California—National Show at Del Webb's Newporter Inn, Newport Beach, CA: information: Jay Pengra, 954 St. Katherine Dr., Flintridge, CA 91011.
- March 26-27 - Atlanta, Georgia—by the Georgia Daffodil Society and Rich's Garden Center of Atlanta at Plaza Auditorium, Rich's Downtown Store, Forsyth, MLK Drive, and Spring Streets; information: Mrs. Jeanne O. Lynch, Rich's Garden Center, P.O. Box 4539, Atlanta, GA 30302.
- March 28-29 - Memphis, Tennessee—by the Mid-South Daffodil Society at the Goldsmith Garden Center, Audubon Park; information: Mrs. John H. Payne, 1008 Brownlee Rd., Memphis, TN 38116.
- April 1-2 - Suffolk, Virginia—by the Garden Club of Virginia at the Nansemond River Academy; information: Mrs. Thomas J. O'Connor, 1020 Maryland Ave., Suffolk, VA 23434. (not an ADS show.)
- *April 4 - Fayetteville, Arkansas—by the Arkansas Daffodil Society at the Methodist Assembly Grounds on Mount Sequoia, Arkansas; information: Mrs. Victor M. Watts, 1619 West Maple, Fayetteville, AR 72701.
- April 4 - Paducah, Kentucky—by the Kentucky Daffodil Society at the Paducah Open Air Market, 2nd and Washington Streets, Paducah, KY; information: Mrs. Richard Roof, 249 Cardinal Lane, Paducah, KY 42001.
- April 4-5 - Nashville, Tennessee—Southern Regional Show by the Middle Tennessee Daffodil Society at Botanic Hall, Cheekwood; information: Mrs. Joe Talbot, III, 6117 Bresslyn Rd., Nashville, TN 37205.
- April 4-5 - Hampton, Virginia—by the Tidewater Virginia Daffodil Society at the Holiday Inn (Coliseum) in Hampton, VA; information: Mr. H. A. Rountree, Jr., 276 Harris Creek Rd., Hampton, VA 23669.
- April 7 - Accomac, Virginia—by the Garden Club of the Eastern Shore at the Drummondtown United Methodist Church; information: Mrs. Charles S. Manning, Metomkin Farm, Accomac, VA 23301.
- April 8-9 - Chapel Hill, North Carolina—State Daffodil Show by the Chapel Hill Daffodil Society in the Totten Center, North Carolina Botanical Garden; information: Mrs. W. C. Wiley, 412 Cameron Ave., Chapel Hill, NC 27514.

- April 10 - Scottsburg, Indiana—by the Indiana Daffodil Growers-South at the Presbyterian Church, Highway 56 & Washington Sts.; information: Mrs. Verne Trueblood, RFD 3, Box 187-A, Scottsburg, IN 47170.
- April 11 - Princess Anne, Maryland—by the Somerset County Garden Club at the Peninsula Bank; information: Mrs. H. Parker Tull, Jr., 11 E. Main St., Crisfield, MD 21817.
- April 11-12 - Gloucester, Virginia—by the Garden Club of Gloucester at the Gloucester Intermediate School, Route 17; information: Mrs. John D. Briggs, Bena, VA 23018.
- April 13-14 - Philadelphia, Pennsylvania—by the Philadelphia Area Daffodil Society at the Horticultural Hall, Fairmont Park; information: Mrs. Kevin W. Keenan, 1543 Old Welsh Rd., Huntingdon Valley, PA 19006.
- April 17-18 - Dayton, Ohio—by the Southwest Ohio Daffodil Society at the Wegerzyn Garden Center, 1301 Seibenthaler Ave.; information: Mrs. Robert Sulgrove, 5512 Woodbridge Lane, Dayton, Ohio 45429.
- April 18 - Carbondale, Illinois—Illinois State Show by the Southern Illinois Daffodil Society at Southern Illinois University; information: Mrs. Glen Sands, RR2, Box 341, Lake Rd., Murphysboro, IL 62966.
- April 18-19 - Washington, D.C.—Middle Atlantic Regional Show by the Washington Daffodil Society at the National Arboretum Administration Building, 24th and R Streets, N.E.; information: Mrs. Robert J. Westbrook, 31 Murray Hill Dr., Oxon Hill, MD 20022.
- April 21-22 - Chillicothe, Ohio—Midwest Regional Show by the Adena Daffodil Society at the Veterans Administration Hospital, Recreational Hall, Bldg. 9; information: Mrs. Kenneth Dunn, 28 Shawnee Dr., Chillicothe, Ohio 45601.
- April 22-23 - Downingtown, Pennsylvania—by the Woman's Club of Downingtown at the Woman's Club Clubhouse, Manor Ave; information: Mrs. James C. Patterson, 130 Woodland Circle, Downingtown, PA 19335.
- April 22-23 - Baltimore, Maryland—by the Maryland Daffodil Society at the Brown Memorial Church, North Charles St.; information: Mrs. Frederick Viele, 237 Cooley Mill Rd., Havre de Grace, MD 21078.
- April 23 - Indianapolis, Indiana—State Show by the Indiana Daffodil Society at the Meridian Street United Methodist Church, 5500 North Meridian St.; information: Mrs. Robert H. Brunner, 610 College Lane, Indianapolis, IN 46240.
- April 24 - Wilmington, Delaware—by the Delaware Daffodil Society at the St. Albans Episcopal Church, 913 Wilson Rd.; information: W. R. MacKinney, 553 Woodhaven Rd., West Chester, PA 19380.
- April 25-26 - Columbus, Ohio—State Show by the Central Ohio Daffodil Society at Upper Arlington Municipal Services Bldg., 3200 Tremont Rd.; information: Mrs. Hubert Bourne, 1052 Shadyhill, Columbus, Ohio 43221.
- *April 28-29 - Chambersburg, Pennsylvania—Northeast Regional Show by the Chambersburg Garden Club at the Chambersburg Recreation Center, South Third St.; information: Mrs. William A. Nelling, 657 Philadelphia Ave., Chambersburg, PA 17201.
- April 30 - Greenwich, Connecticut—by the Greenwich Daffodil Society at the Boys Club of Greenwich, Horseneck Lane; information: Mrs. Clarke Randt, Husted Lane, Greenwich, CT 06830.

May 9-10 - Chaska, Minnesota—by the Daffodil Society of Minnesota at the Minnesota Landscape Arboretum, 3675 Arboretum Dr.; information: Michael L. Heger, Route 1, Box 64, Waconia, MN 55387.

*Please note a change of date from that listed in the December *Journal*.—Ed.



THE DAFFODIL MART

Dear Customers and friends,

We are approaching our fifth year of hybridizing small and fragrant daffodils with great anticipation.

Through the generosity of friends and help of growers, we continue to expand our list and number of varieties that we grow (over 2000 now). We are always looking for rare, outstanding and unusual varieties, with particular interest in Division 5-11. Please write to us if you have some and would like to trade. We are interested in raising, evaluating and selling your outstanding new hybrids.

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DAFFODIL DISEASES AND PESTS: VII - NONINFECTIOUS DISEASES

THEODORE E. SNAZELLE, PH.D.
Mississippi College, Clinton, MS 39058

It is of the first importance to understand that disease is a condition of abnormal physiology, and that the boundary lines between health and ill health are vague and difficult to define.

Marshall Ward (1901)

Recall that disease is defined as any departure from a state of health and that noninfectious disease is that which is not caused by a microbe(1). It is now important to note that to one degree or another a departure from a state of health also involves a concomitant physiological change, e.g. the browning of a freshly cut apple is due to the oxidation of naturally occurring phenolic compounds to quinones by enzymes which are called polyphenol oxidases. Thus, noninfectious as well as infectious disease is not only a departure from a state of health but a departure which involves physiological change as well. Noninfectious disease of narcissus and other plants is caused by nonbiological agents, e.g. hot water treatment (HWT) damage, freeze damage, herbicide damage, etc.

HWT DAMAGE

In an attempt to control the bulb and stem nematode, *Ditylenchus dipsaci*, by HWT, damage to narcissus may occur which involves the flowers, leaves, bulbs, and roots (2,3,4). Basically, HWT damage occurs as a consequence of being performed at too high a temperature or at the wrong time, i.e. before the Pc stage of internal development has been reached or a long time after it has been reached (2,4). The Pc stage of internal development of the flower in the bulb is said to have occurred when the final floral part, the trumpet or paracorolla, is clearly visible as a peripheral frill outside the base of the anthers (2,4). This stage of development can only be discerned by dissecting the flower bulb to expose the developing flower. Obviously, this is practical only when large quantities of bulbs of a single cultivar are grown. Thus, the hobbyist's concern is not the timing of HWT but rather is the recognition of HWT damage so that otherwise healthy bulbs would not needlessly be rogued. As you will recall (5), there are two basic regimens for HWT: 1) first year flowers not required—HWT for three hours at 44.4°C (112.0°F), and 2) first year flowers required—warm store the bulbs for seven days at 30°C (86°F), pre-soak for three hours or overnight, and HWT for three hours at 46.7°C (116.0°F).

FLOWER DAMAGE

If HWT is given very early, i.e. before the Pc stage of internal development, the flower bud may be killed in the bulb; however, if HWT is applied to the bulbs just before the Pc stage of internal development is reached, the damage usually takes the form of a split trumpet and ragged perianth (2). See Figure 1 showing HWT damage to a narcissus flower.

FOLIAGE DAMAGE

When HWT is carried out later than it should be, i.e. after the Pc stage of internal development has been reached, the foliage will show a pale-green, yellowish or grayish mottling or blotching near the leaf tip (2,3). See Figure 2



Top left: Figure 1, Trumpet Break, HWT Damage; right: Figure 2, Foliage, HWT Damage (both British Crown Copyright). Bottom left: Figure 3, Freeze (frost) Damage to Foliage of *N. italicus*; right: Figure 4, Freeze (frost) Damage to Flower Bud (both Snazelle photos).

showing HWT damage to narcissus foliage. It is important for the hobbyist not to react prematurely and rogue these bulbs because he/she thinks that they are virus-infected. If the symptoms on the leaves are due to HWT, they will not be seen again on the foliage of second-year-down bulbs; however, symptoms due to virus infection would be present on both first and second-year-down bulbs. Occasionally, foliage of a bulb may show symptoms of both HWT and virus infection (3).

BULB DAMAGE

Damage to bulb scales sometimes occurs when the temperature was too high or when the period of treatment was too long. Damage to bulb scales due to HWT shows up as irregular greyish areas deep within the bulb and, often times, extending up from the basal plate. Bruising of bulbs also shows up as irregular greyish areas on the bulb scales; however, damage due to bruising usually is expressed in the outer scales rather than in the scales deep within the bulb (3).

ROOT DAMAGE

If HWT is applied to bulbs very late, i.e. after the root initials have emerged from the basal plate, or at too high a temperature, root damage may occur which may express itself by the bulb making poor growth the next season (3).

SUMMARY

The safest time to minimize HWT damage is to give HWT to the bulbs shortly after they have reached the Pc stage of internal development (2).

FREEZE (FROST) DAMAGE

The available literature to the author on freeze (frost) damage to narcissus was quite limited. Freeze (frost) damage in narcissus is expressed in three ways: 1) damage to foliage, 2) damage to flower, and 3) damage to bulb. Freeze (frost) damage to foliage usually takes the form of death (necrosis) of the leaf tips (Figure 3). Such damage is particularly common in cultivars and species which put forth foliage early in the year. Usually, freeze (frost) damage causes no permanent damage other than creating unsightly foliage. In the case of freeze (frost) damage to the flower, it is most pronounced while the flower is still enclosed in the spathe or sheath, resulting in a killed flower bud which turns brown, fails to open, and may even separate from the stem (Figure 4). Lastly, in particularly tender cultivars and species, e.g. some tazettas, bulbs will actually freeze in the ground and will not put forth foliage again. Fortunately, most daffodil cultivars and species forms have good cold hardiness and survive the rigors of winter nicely.

FLOWERING—LIGHT/COLD EFFECTS

Perhaps the failure to bloom after the first year in a location which receives inadequate sunlight, e.g. the north side of a house, might not be considered by all to be a disease; however, the disease definition by Ward at the beginning of the article clearly points out that disease is ultimately expressed in terms of abnormal physiology. In the case of narcissus, the available literature to the author is sketchy as to the specific light and cold requirements for flowering. Nonetheless, the physiology of flowering in

narcissus may be the same as in other plants and involve the production of light/cold induced flowering hormone(s). Thus, one might conjecture that the failure to flower in narcissus might be due to the failure of the hormone(s) to be produced. One thing which is clear is that next year's flower is formed in the bulb immediately after flowering (light dependent effect) and, in most instances, the bulb must go through a period of cold before flowering will occur the following spring (cold dependent effect). Therefore, the question concerning the physiology of narcissus flowering is as follows: What hormone(s) govern(s) flowering in narcissus? Thus, the failure to produce hormones involved in flowering would be a case of abnormal physiology in narcissus; hence, disease.

A simple experiment at Wisley Gardens has shown that the foliage must be left on bulbs for at least six weeks after blooming in order to insure bloom again the next year (6). Of course, the reason for this is that light impinging on the leaves during this period induces formation of next year's flower in the bulb.

HERBICIDE DAMAGE

Damage to narcissus foliage by herbicide drift often shows up as leaves with pale steaks, rusty mottling at the base of leaves, or leaves which are uniformly bright yellow (3). Herbicide drift occasionally occurs when the hobbyist or his neighbor is spraying a herbicide, e.g. 2,4-D, to kill broadleaf weeds, e.g. the dandelion, *Taraxacum officinale*. A specific example of herbicide damage to narcissus has been shown to occur when the pre-emergence herbicide (kills weeds before they emerge from the soil) clorpropham was used on a narcissus planting. Chlorpropham causes chevron-like markings on narcissus leaves (Figure 5). In an effort to control thistle in the Columbus, Ohio, Whetstone Park narcissus planting, Amitrol was used only on the thistle in August 1975. The result of this was the production of some narcissus foliage and flowers the following spring (1976) which were devoid of chlorophyll. Subsequently, some improvement was noticed in the spring of 1977; however, the bulbs of cultivars from areas treated with Amitrol were much smaller than those of the same cultivars from untreated areas. In subsequent years, glyphosate (Roundup) was used for weed control after the foliage had completely died down (7). The reader should be advised that a herbicide like Roundup used on actively growing narcissus plants will not only kill the foliage but will also kill the bulbs as well. Thus, precaution must be taken with use of any herbicide or devastating results may occur. One desirable aspect of the use of Roundup for weed control is that it is extremely short-lived, i.e. it completely disappears from the soil and plant residues after a few days (8).

MINERAL DEFICIENCIES

The literature available to the author on mineral nutrition in narcissus was virtually nonexistent. Thus, the effects of phosphorus and potassium deficiencies cannot be stated by the author with certainty. Nonetheless, to insure adequate amounts of these elements in the soil, a fertilizer like 0-24-24 can be used at the rate of 1-1½ lb/100 square feet for new beds. For

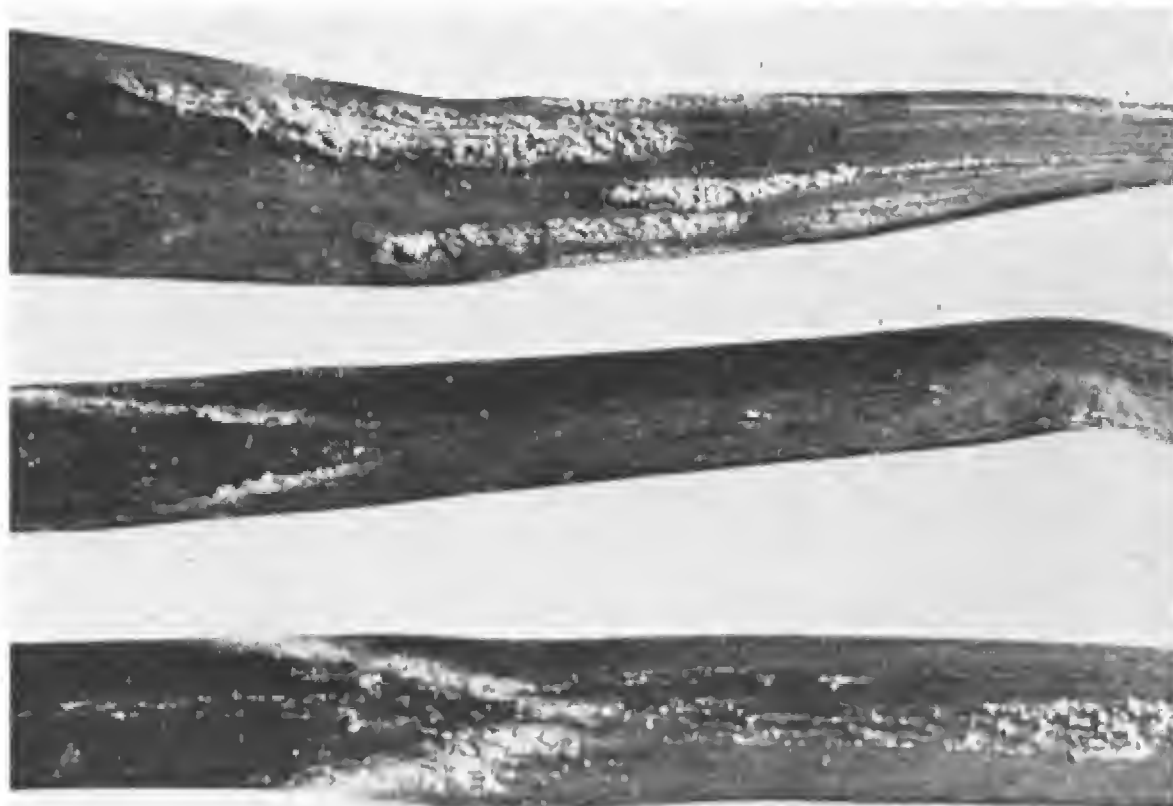


Figure 5, Herbicide (Chlorpropham) Damage to Foliage (British Crown Copyright).

established plantings, a top dressing of $\frac{1}{2}$ lb 0-24-24/100 square feet can be applied in the fall, in the spring at emergence of the leaves, and again after flowering. At Rosewarne Experimental Horticulture Station, Camborne, Cornwall, England, where fertilizer applications have been steadily reduced in recent years because of a high reserve of phosphorus and potassium in the soil, pre-planting fertilizer application has been at the rate of 75 kg P_2O_5 (phosphorus)/hectare and 200 kg K_2O (potassium)/hectare. No additional top dressing was applied during the remainder of the two year cycle (9). In units more familiar to the hobbyist, the Rosewarne fertilizer applications at planting are as follows: $2\frac{1}{2}$ oz phosphorus (P_2O_5)/100 square feet and $6\frac{1}{2}$ oz potassium (K_2O)/100 square feet. The point of all of this is that the hobbyist does not have to religiously apply the same amount of fertilizer to his/her beds every year as it may well be that a good phosphorus and potassium reserve has been established. This can be confirmed by taking a soil sample to your local County Extension Agent for analysis. As is commonly practiced little to no nitrogen is applied to the beds as this may contribute to enhanced basal rot. In summary, it seems rather unlikely that the hobbyist will ever be confronted with the problem of phosphorus and potassium deficiency if minimal application of low nitrogen fertilizer is applied periodically to the planting.

MISCELLANEOUS DISORDERS

Bulbs lying in waterlogged soils produce stunted chlorotic foliage and invariably rot if the condition is prolonged. Obviously, prevention of waterlogging is dependent upon planting in beds which are naturally well-drained or in raised beds. Automobile exhaust emissions which are directed

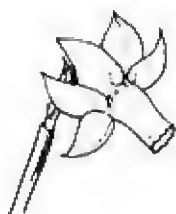
on a clump of daffodils will severely damage the foliage. Although it would probably occur only in a large commercial daffodil planting, lightning striking the soil would leave a circular area of scorched plants with the effect being greatest at the point of impact and least at the periphery. Repeated urination by dogs on daffodil foliage may cause discolored foliage. Calcium chloride or sodium chloride used to melt ice on the streets may be splashed up onto daffodil beds in sufficient concentrations to severely damage or kill bulbs in the soil. High salt concentrations in the soil can be counteracted to a degree by digging gypsum into the soil. In summary, the list of inanimate objects which will cause a departure from a state of health in narcissus is endless.

AUTHOR'S COMMENTS

This article on noninfectious diseases of narcissus is the last of seven articles on diseases and pests of narcissus. For any errors which may have appeared in the articles, the author accepts full responsibility. The reader should be advised that this series of articles on daffodil diseases and pests doesn't represent the last word on the subject but is only an introduction to it.

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ROBIN ROUND-UP

RICHARD EZELL, *Chambersburg, Pennsylvania*

I certainly hope Lucy Christian doesn't have to "see spring from Interstate 64" as she did last year, driving back and forth from her home in Urbanna, Virginia, to be with her husband, Frank, hospitalized in Richmond. But the experience, however trying for her, provided ever-observant Lucy with material for some memorable passages in her letter for the Regional Robin #2.

In round formal beds and against brick walls, in old orchards and along the roadside, she watched the common, wonderful old daffodils of the countryside come and go. Of three daffodil drifts at one very small house she noted, "One started in the yard but spilled down to a ravine. The other two drifts wound back into the woods. I'm sure there was not a flower which would have won a ribbon, not even an honorable mention, but they certainly could please the passer-by." She saw blooms scattered along a lengthy stretch of highway "planted" inadvertently by the roadbuilding earthmovers; and where once there had been a home and a garden, nothing remained but an old fence—and in front of it, a row of "old early Virginia (Trumpet Major)" still blooming away. Before her trips to Richmond ended, the daffodil season finished with "*biflorus* (Twin Sisters) blooming in an old orchard which had been plowed over many times." Reflecting on her experience of observing the daffodil season mostly from her car window, Lucy wrote, "Most of the flowers I saw were a far cry from those lovely, lovely new ones which [we see at shows], but these old ones are *survivors*."

The five old friends of this "Southeastern" Robin have recently taken on three new members, in the process extending its geographical boundaries out to Texas and up to Pennsylvania. It is quite obviously a close-knit, warm and friendly bunch. Sue Robinson remarks that "all daffodil lovers have much in common," but I think the members of this Robin are something special; as Loyce McKenzie put it, meeting her fellow Robin members for breakfast at the Memphis convention was "more like a family reunion."

Jean Manfredi, as she wrote her contribution to the General Robin #2 last September, was enjoying a number of freshly opened daffodil blooms. A most unusual September up in Massachusetts, you must be thinking. Jean had made it unusual by ordering bulbs from Australia, receiving them in the spring, potting them in May as they began to show green shoots, and popping them into her refrigerator for a cool rooting period, removing them in late August, first to subdued light outdoors and then into the sun. Her painstaking care was rewarded by blooms in September and October. But what about this year . . . and next? Will the horrible shock of November in Massachusetts, following hard upon the heels of their early fall exertions, cause those Aussie bulbs to cancel all thoughts of ever surfacing again into this crazy, mixed-up world to which Lindsay Dettman dispatched them? At any rate, her fellow Robin members may expect Jean Manfredi to keep her watchful eyes upon them, and report their progress—or lack of it.

This is just the kind of information many participants value most in their Robins: after all, the practice of importing bulbs from Australia and New Zealand is still very much in the experimental stage, and hardly any two who have tried it seem agreed on best methods; certainly results have varied

tremendously for different people in different years. But there are so many beautiful daffodils down under, and we cannot afford to neglect them . . . so those among us who are willing to take the time and trouble to experiment with ways to get them settled over here as happily as possible, are doing all of us a considerable favor. The Round Robins are of course an excellent medium for the exchange of results, suggestions for improvement, and help with specific problems.

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A new Robin is now on the wing: one that aims purely and simply to cover *all* about tazettas: species, hybrids, and poetaz types. If you grow these, or would like to, let me know right away; there are still openings for a couple more "charter" members. Also in the works: a cyclamineus Robin and a new miniature Robin. And who, please, would be interested in joining a new hybridizers' Robin? My address is 1341 Lincoln Way East, Chambersburg, PA 17201.

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ROBIN FEATHERS

More than one recent Robin writer has commented unhappily upon what seemed to the writer to be a tendency for judges to place far too high a value upon sheer size of bloom in awarding show ribbons. One went so far as to place the blame for this "tendency" squarely upon the shoulders of *male judges*. What implications are here? Does size attract size? Shall we allow no one over five feet two to judge miniatures? Do short men prefer short stemmed flowers? Cannot a man like Golden Aura almost as well as Carlton? If we get still more male judges will Unsurpassable begin beating Arctic Gold? Will we offer a new award for Biggest Miniature in Show? Ladies, I beg of you, save us from ourselves.

BEGINNERS CORNER

Hopefully over the past year, some of you have been encouraged to plant some exhibition daffodils and are now ready to take the plunge and enter your first show. To help prepare you for that, we are excerpting from materials prepared for a "Workshop Preparing for Daffodil Show" which was sponsored by the Central Ohio Daffodil Society in 1980.

CUTTING AND CONDITIONING

1. Have handy a bucket with water, clippers, pen that will write on blooms, rubber bands, small cards with holes.
2. Cut on a slant with sharp knife; never pull the bloom. Never cut down into the white part of the stem. Identify that bloom by placing the name and division and color coding on the stem IMMEDIATELY. Write on the back of the stem.
3. All blooms will be larger if left on the plant until fully open. However, red cups should be picked as soon as opened or protected to prevent sunburn. If you're unhappy with a short stem, you can lengthen the stem by cutting

the top and bottom from a cardboard box; stake sides to the ground around the clump and stems will lengthen by seeking the light. To retard growth of the stem, use cardboard box method and shade the top.

4. Cut in mid-afternoon when the sugar content is highest; sugar content helps to preserve blooms.
5. Place blooms in tepid water (about 80°) no more than two to three inches deep and leave until cool. Then place in cold water for twelve to twenty-four hours. NOTE: Don't overcrowd flowers; keep them out of drafts and bright light.
6. This is the time to groom your flowers. Remember condition counts 20%; you want a fresh, CLEAN flower. Rainspots, dirt, spilled pollen, etc. can be removed.
 - (a) Dirt and rainspots you remove with wet cotton, Q-tips, soft brush or cotton dipped in milk or detergent and rinse off. Also clean the back side.
 - (b) Remove pollen spilled in the cup with small, dry brush or blow into cup.
 - (c) Ridges may be smoothed out by wrapping your finger with cotton ball, place finger behind perianth segment and brush gently with a camel's hair brush.
 - (d) NEVER, NEVER remove the sheath even though mutilated.
 - (e) To get axis balance, gently twist head of the flower.
 - (f) Direction of light can cause twisting of neck and ruin the pose. Keep out of drafts and bright light. Pose of flower may be improved by placing flower below light to raise pose; by placing above light to lower pose. Flower should look you straight in the eye (with the exception of pendent flowers).
 - (g) Recut stem if split or curled at the base.
7. Daffodils can be kept in the refrigerator up to ten days. After cleaning, make sure they're fully dry before placing in two inches of water in refrigerator (non-self-defrosting refrigerator is best). Keep temperature around 40-45°. Humidity needs to be kept high to keep substance from drying out. This can be accomplished with (a) wet towel, (b) fill drainage hole in bottom of refrigerator with floral clay and place water in bottom, and (c) spray with atomizer from time to time during refrigeration.

THOSE DAFFODILS WITH MANY FAULTS, FORGET AND LEAVE AT HOME.

—“TAG” BOURNE

STAGING

Good Staging can improve some of the qualities of a specimen such as pose and length of stem. (Make sure stem is in water).

Make out entry tags days before the show with name and address.

If possible secure containers ahead of time and stage blooms at home; this saves much time day of show.

Generally blooms should look you straight in the face unless of a type that is naturally drooping in nature.

THREE STEMS

UNIFORMITY of all elements (size, color, etc.) is important; five points may be deducted for lack of uniformity. Place in an equilateral triangle with largest bloom at top. Blooms should not touch.

COLLECTIONS

Place largest blooms at top rear; shortest on bottom row.

Alternate yellow and white perianths and red or pink cups with white or yellow ones if possible for balance. Early in the season there are more yellow perianths, late in season more white ones. **DO NOT SACRIFICE QUALITY** to obtain contrast of colors.

More divisions represented is a plus. In each row, specimens should be the same height, especially top row. Overall view should be pleasing.

Place entry tag and individual labels with name of daffodil, division, and color code. In American-Bred class list also the name of the hybridizer. Make sure *both top and bottom* portions of entry tag are properly filled out.

TAKE TO THE SHOW A KIT INCLUDING:

(1) Extra entry tags with name and address on (2) Camel hair brush (3) Schedule (4) RHS Classification (5) Q-tips (6) Card pins and cards (7) Knife and/or clippers

TAKE EXTRA BLOOMS IN CASE OF DAMAGE OR LOSS OF SUBSTANCE.

—NAOMI LIGGETT

JUDGING

The first thing to remember is that the schedule rules; the judge studies the schedule and is governed by its rules. For instance, if the schedule rules that all entries must be labeled and color coded any entry which does not follow this rule will be automatically disqualified. The judge never disqualifies an entry, just does not judge it. This is what the judge looks for:

CONDITION — Is the specimen at its prime, fresh, clean, strong . . . not overly limp, thin and transparent . . . are there cuts, tears, bruises, rain spots or evidence of sunburn.

FORM — Is it typical for the Division? For instance, ideally for Divisions 1 through 3 and 9 the perianth segments are flat and overlapping forming a visual circle. Is the cup nicely rounded with evenly serrated or ruffled edges? Does it have axis balance? Faults are mittens, mis-shapen cup, flopping and twisted petals.

SUBSTANCE & TEXTURE — Is the tissue velvety smooth and thick, satiny smooth, waxy; does it glisten? Faults are crepey and ridged petals; thin edges and tips to petals.

COLOR — The color should be typical to cultivar; clear, clean without streaking and fading. Green is a plus in the eye of a cup, but green on the backs of a cultivar is a fault. The toned and reverse bicolours, pinks, etc. present a different problem. Knowledge and experience in judging them at their prime stage of development is of importance, otherwise it may be immature or past its prime. The word "variable" will be introduced in the latest data bank which should be available in October.

POSE — Is it at right angles to the stem? Does the flower look right at you. Exceptions: Divisions 4 through 8.

STEM — Should be straight, strong enough to support the flower, and in proportion to the size of the bloom.

SIZE — Knowledge of normal size of flower is important. Extra large blooms indicate good culture and are a plus unless refinement of the flower is lost.

—GRACE BAIRD

BITS AND PIECES

One of the highlights of the holiday season was Beryl 6Y-O coming into bloom on Christmas Day. Three of the bulbs bloomed with two scapes each. This was one of the cultivars I planted at our last CODS meeting [October 21]. I would like to say I read all the instructions and counted the days, etc., but didn't. The pots were placed in the garage the night of the meeting and not watered until the third of November. Sometime later the foliage and then the buds appeared. At this time they were placed in a northern window of the garage. On December 20th the pot of Beryl was brought indoors to a bedroom with a southern exposure and the register partially closed. Five days later—voila! The other cultivar, Golden Dawn 8Y-O, is still in the garage with foliage only visible.

—NAOMI LIGGETT, *Cods Corner*, January, 1981

AN ARKANSAS TEST GARDEN

In 1978 Arkansas members of ADS were so impressed by the daffodil planting in the Columbus park, they wished to have some sort of display in their state which would help in giving an answer to those who asked, "What kinds of Daffodil can I grow in Arkansas?" It appeared such a project would be helpful not only to residents of this state, but to those in adjoining states with comparable climatic conditions (Kansas, Oklahoma, parts of Louisiana, Texas, and Tennessee, as well as Missouri). We wrote to Mr. Thompson to say we felt our climate was so different from that in South Carolina and Minnesota that this was a project the Arkansas Daffodil Society would like to undertake. The Society members would provide the bulbs, the University of Arkansas would provide space at the Experimental Station at Fayetteville, planting and maintenance, and Dr. Gerald Klingaman would oversee records (as he does for the All American planting).

In the fall of 1979, the Society's first collection of bulbs was assembled at the fall meeting; nearly 200 cultivars were planted in groups of three each. Because they are planted in rows, the blooms do not make the beautiful display they might. Experience showed there is need for a close watch to be kept for dates of bloom. In our own garden on top of a hill, four miles away and about 100 feet higher, a cultivar might hardly have leaves showing while the same one was in bloom at the Test Garden (and so be caught by a late freeze).

A report was compiled for 1980 and sent to Mr. Thompson. A few cultivars needed to be replaced.

Through the kindness of Arkansas Daffodil Society members, Murray Evans, and the Central Ohio Daffodil Society, another 100 cultivars were planted this fall (1980). It is hoped more will be added each year.

The Arkansas Society also voted this fall to provide bulbs for a planting on the State Capitol Grounds (as had other Societies, Rose, Daylily, etc). These are uniform beds, cared for by the Capitol Landscape Personnel). Mrs. Fred Wm. Harris is chairman of the committee which has received donations of bulbs from state members and commercial growers, all of whom have been most generous. These bulbs are now planted.

For the fourth year additions have been made to the roadside plantings along U. S. 71, north of Fayetteville. About four bushels of daffodil bulbs went in this year, with the help of members of the U. of A. Horticulture Club. Bulbs were donated by a local grower.

—ISABEL BUNTEN WATTS, *Fayetteville, Arkansas*

IN THE BEGINNING

WILLARD A. KING, *Hot Springs, Arkansas*

The first organized activity of the daffodil growers of America centered in the Garden Club of Virginia, the Washington Daffodil Society, and the Maryland Daffodil Society. As a result of the activity, shows, and publicity put out by these three clubs, the editor of *Popular Gardening* magazine, Paul Frese, felt that it was time to organize a national daffodil society, so he ran an article in the October, 1953, issue entitled "Who Will Join a Daffodil Society?" The response was so great he wrote a letter to some of the most active members of these three clubs urging them to proceed with the organization of a national daffodil society. One of the respondents was Judge Carey E. Quinn who promised to get an enthusiastic group of people together to, at least make an effort, get something started. Inasmuch as Carey and I were traveling all over the Mid-Atlantic states at this time judging daffodil shows, giving talks to various garden clubs, and because we were very close friends, he sold me on the idea that we should have the first meeting in my home because it was centrally located to the three most active daffodil clubs. He sent out invitations to a number of members of the three clubs whom he thought would be willing to come to such a meeting. Those attending this first meeting were Mrs. Lawrence R. Wharton, president of the Maryland Daffodil Society; Mrs. J. Robert Walker, chairman of the Garden Club of Virginia's test garden; Mrs. William A. Bridges of the Maryland Daffodil Society; Harry I. Tuggle of the Garden Club of Virginia, and of course, yours truly. He had to invite me as the meeting was being held in my living room. I might add that at this time, Carey was president of the Washington Daffodil Society.

After considerable discussion it was decided to call a meeting of those members of the three clubs who were thought to be most interested in organizing a national society. Mrs. George D. Watrous, Jr. of Washington, D. C. was responsible for getting such a group together and invited them to participate in an organizational meeting which would be part of the agenda of the Third Annual Daffodil Institute of the Washington Daffodil Society. This was held on April 9, 1954, at Woodward and Lothrop's department store in Chevy Chase, Maryland.

This meeting was called to order by Frederic P. Lee. Paul Frese was elected temporary chairman and Harry I. Tuggle was elected temporary secretary. The following were selected as the first Board of Directors:

Mrs. William A. Bridges	Mrs. Frank Gnilkeep
Mrs. Jesse Cox	Joel Chandler Harris
Paul F. Frese	George W. Heath
Jan deGraaff	John R. Larus
Frederic P. Lee	Harry I. Tuggle
Grant E. Mitsch	Mrs. J. Robert Walker
Mrs. Theodore Pratt	Mrs. Lawrence R. Wharton
Carey E. Quinn	Dr. Freeman Weiss
Fred F. Rockwell	John C. Wister
Dr. George L. Slate	William H. Wood

On January 22, 1955, the Board of Directors adopted a constitution and by-laws which made the American Daffodil Society a recognized national horticultural society. At this same meeting the directors elected the following as the first permanent officers:

President: Carey E. Quinn
First Vice-President: George S. Lee, Jr.
Second Vice-President: Grant E. Mitsch
Secretary: Willis H. Wheeler
Treasurer: Mrs. William A. Bridges
Editor: Freeman W. Weiss
Registrar: Mrs. Walter Colquitt
Librarian: Mrs. John S. Moats
Round Robin Director: Mrs. E. G. Sawyers

The final item at this most important meeting was the decision to hold the first national daffodil show on April 7, 1956, in honor of Guy L. Wilson, the dean of contemporary daffodil breeders.

The next great accomplishment of this fledgling society was the publishing of the first annual *Yearbook* and an accolade for this accomplishment goes to Dr. Freeman Weiss. He worked long and hard to bring this publication into being, and if my memory serves me correctly it came out in March of 1956.

On February 20, 1958, the Society was incorporated and the incorporation papers were signed by Margaret C. Lancaster, Roberta C. Watrous, and Freeman Weiss. Five days later on February 25, 1958, these same three signers of the Certificate of Incorporation set their hand and seal to the unanimously adopted by-laws which are now in effect.

At this same time the directors provided for nine Regional Vice-Presidents and six Directors-at-Large. The nine Regional Vice-Presidents were:

New England: Mrs. William B. Weaver, Jr.
Northeast: Mrs. John B. Capen
Middle Atlantic: Mrs. Lawrence R. Wharton
Midwest: Dr. R. C. Allen
Southern: Mrs. Robert L. Hovis
Southeast: E. Fay Pearce
Southwest: Mrs. J. T. Foster
Central: Mrs. R. O. Powelson
Far West: Mrs. Kenneth B. Anderson

The six Directors-at-Large were:

Harry I. Tuggle	Orville W. Fay
Dr. John C. Wister	John R. Larus
Mrs. Paul Sowell	Mrs. Goethe Link

The Society was now faced with the new problem of becoming a viable national organization. The success of this effort was largely due to the dedicated missionary work of one Carey E. Quinn who made many trips to other daffodil centers, renewing old acquaintances, inspiring enthusiasm among the large growers and commercial nurseries. It is doubtful whether anyone in the country could have accomplished this mission so successfully.

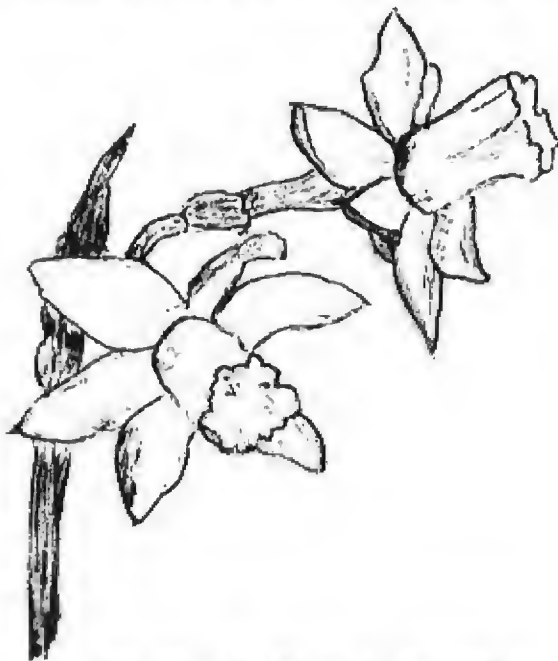
There were others who contributed much to the success of this struggling young organization whose names do not appear above. People like B. Y. Morrison, founder of the American Horticultural Society; Dr. Tom D. Throckmorton; Mrs. Howard B. Bloomer, managing editor of the first *Daffodil Bulletin*; Charles Meehan, who masterminded the first National Daffodil Symposium; Dr. Charles R. Phillips, Managing Editor of the *Yearbook*; Hubert Fischer; Mrs. Ben M. Robertson; Eleanor Hill; Mrs. Floyd Harris; Mrs. Leslie H. Gray; E. C. Powell; Mrs. John Bozievich; Dr. Helen Scorgie; Mrs. Asa Watkins; and William Pannill.

MINIATURES FOR FORCING

PEGGY MACNEALE, Cincinnati, Ohio

This will be a two-part article with a continuation in the September *Journal* on the actual forcing process. In the meantime, catalogues are arriving, prices are being compared, and orders are being made out. It is important to remember that early spring orders will result in early fall packages. When it comes to bulbs for forcing, it is never too early. Bags of bulbs can always be put in the refrigerator for some extra pre-cooling if you are lucky enough to receive your order around Labor Day.

Miniature daffodils that are known as successful forcers are not too numerous. As with the standard varieties, those that naturally bloom early out-of-doors will usually do best when forced. Also, many gardeners are very price-conscious when ordering bulbs for forcing, so want varieties that will not strain the budget when purchased by the dozen. A pot of miniatures doesn't make much of a splash unless at least a half-dozen flowers are in bloom at once. This would be about the number that would fit in a 3 or 4-inch African violet pot. A 5 or 6-inch azalea pot would take a good dozen miniature bulbs.



Drawing by Mary Cartwright

From my own experience, as well as that of Charlie Gruber, who has been involved with the PADS display at the Philadelphia Flower Show each March for many years, Tete-a-tete is the easiest miniature daffodil to force. Its reliability on every count makes it the favorite miniature of the Dutch growers, who plant it in sweeps at Keukenhof, and ship it by the ton to park departments, wholesalers, and commercial greenhouses all over the world. The Tete-a-tete bulb is a bit on the large size as far as miniatures go, so an appropriate-sized pot should be selected. The price of Tete-a-tete is reasonable for a good cultivar, and of course you can plant the forced bulbs in the garden later in the spring to

recover and bloom out of doors for years to come.

You cannot say as much for the species miniatures, which may seem to be much less expensive in catalogues, but which either do not force with even growth, or else have a frustrating way of disappearing when planted out. *Asturiensis*, for instance, is able to be forced, as is *triandrus albus*. Both are listed in many catalogues and are not expensive. However, do not count on them to perform any better in later years in your garden than they do when planted outdoors in the first place. *Bulbocodiums* are rather easily forced, too, and may be more satisfactory in pots than in the garden if you find them tender in your climate. I have never tried *jonquilla*, but it blooms so late that I think it would not force well. Another feature of *jonquilla* is its height—it would not look as appealing in a pot, with its over-long leaves and stems, as other miniatures, which are more in proportion to the containers.

A few other popular miniatures that can be successfully forced include several jonquil hybrids: Sundial, Baby Moon, and Bobby Soxer; a couple of trumpets: Little Beauty and Little Gem; and a couple of triandrus lovelies: Hawera and April Tears. These are all available from most sources as they have been in the trade for some years. Surely some of the newer trumpets and cyclamineus miniatures would also be good subjects for forcing if anyone wants to order enough of these rather costly bulbs for this purpose. The main idea in forcing bulbs is to have a fore-taste of spring. Buying a quantity of new and/or tricky varieties is an exercise in risk-taking, so those who want a sure thing had best stick to the easy-to-obtain, comparatively inexpensive miniatures discussed here. At the same time, the subject is open to continuing research, and I welcome comments from anyone who has had success with the forcing of miniatures.

MISNAMERS OF DAFFODILS

WILLIAM O. TICKNOR, *Tyner, North Carolina*

It is always a tragedy to an exhibitor to find an entry card marked with a note "misnamed." A panel of judges can't give a ribbon to a daffodil that they feel certain has been wrongly named. Occasionally an exhibitor will give a daffodil the best name he or she can think of and hope for the best. They feel chagrin when they find they have guessed wrong.

The person who buys a named daffodil with good money and later is told the daffodil is misnamed is bitter and has a right to be. Novelty daffodil retailers in Oregon, Vermont, Virginia, the British Isles, and down under are most careful about their names. If you find one of theirs misnamed, check your planting chart and labels first before you complain. Park Seed Company, Wayside Gardens, and several other great gardening retailers are quite reliable as to names.

Other retailers care less about misnaming. Their catalogs are often slick, colorful collections of retouched photos of various flowers, designed to sell plants to tens of thousands of Americans who don't know, or care too much, of the difference between King Alfred and Carlton. They cater to the great multitude. Our 1600 members who do care are small potatoes indeed. A fancy new name or a famous old name can help sell a plant equally as well as can the retouching of an artist.

The answer? If a correct name is important consider the retailer from whom you intend to buy. Is it in their interest to be certain as to the correct names of their plants? If it is, you can buy with confidence.

Mrs. W. J. Perry of Staunton, Virginia, our Public Relations Committee Chairman, has written to quite a number of plant dealers regarding correct naming of daffodils. Many have promised to do better. Perhaps she can inform us as to their reactions to her letters.



BEGINNINGS

HUGH MCKAY, *Napier, New Zealand*

Why daffodils? How many times have friends asked you that question?

My first steps or experimentations were way back as a fourteen or fifteen year-old when I sent for a couple of daffodil catalogues advertised in a gardening magazine. My father had just died and I was enthusiastically trying to look after a large garden. Daffodils were by no means the only plants in which I was interested; the table beside my bed was covered with catalogues of seeds, shrubs, chrysanthemums, gladiolus, dahlias, and roses, amongst others.

The main thing I remember about those first flowers was my disappointment that Grey Lady (a Guy Wilson 3W-WWR) did not turn out to have a grey center! Soon after we were forced to sell our family home and my love of gardening was forced to hibernate for a number of years while I completed a university degree and my teacher training.

My love of the genus *Narcissus*, which had obviously been germinating for several years, finally broke the surface when I had my first garden after marrying and working in my first job teaching English in a secondary school. By chance I noticed an advertisement for a clearance sale of daffodil bulbs from a specialist grower who had retired or died. I bought an ordinary collection and a pink collection. Most of the bulbs flowered the first season but very few of them came up the next year. I dug around and soon discovered a number of large white grubs in the eaten-out shells of my bulbs. No more daffodils for me! I was too busy discovering a whole range of interesting new vegetables. Besides, vegetables were much more practical in that they fed my young family.

Eventually, however, we moved to a little country town and bought our first home. I added a few ordinary daffodils to the garden and then ordered another dozen named bulbs from the late Ted Cotter of Christchurch. That season they flowered beautifully and I began to see the differences between show flowers and ordinary daffodils.

Friends of ours, Americans who were teaching at the same college, were also impressed with my flowers and began insisting that I enter them in the local show which was being widely advertised at the time. That aroused very mixed feelings: *me* put flowers in a show? Shows were for women who had nothing to do but make elaborate arrangements of flowers. Besides daffodils look beautiful growing outside, not cut off and sticking out of a vase. *But* my flowers were better than any others I'd seen and I really should show them off to others, shouldn't I?

Somehow I reached a compromise. I picked up a show schedule, cut enough flowers for half-a-dozen entries, and gave them to my wife to take down to the hall and arrange them for me. After all what are wives for if not to compromise?

I had special hopes for a beautiful three-headed Parcpat (7Y-O) but some of the others like Silver Chimes and Charity May also looked set for prizes. Immediately after school that afternoon I rushed down to the hall as excitedly and hopefully as a school-boy. Parcpat had won first prize and I'd also won two seconds and two thirds; not bad for six entries!

But the winning Parcpat, somehow, didn't look quite right and I accused my wife of not staging it very carefully. Amidst a great deal of laughter I got the whole story from her. In her great rush to the hall she'd dropped my precious Parcpat in the middle of the main street. When she started to stage them she'd found it missing and had started to rush home to look for it, only to find it still lying in the road. She retrieved it, and knowing what my disappointment would be, had decided to stage it anyway. It did not look quite right because it had only about two inches of stem left after being run over and was virtually resting in the top of the vase. My wife is a genius who'd invented first time up one of the oldest dodges of the flower exhibitor.

Anyway this experience was enough to hook me on daffodils and my growing addiction was confirmed the following year when I won champion double with the only perfect Golden Ducat that I've ever been able to grow.

That was eight years ago and now most of my garden is down in daffodils. My year is arranged around the planting of bulbs, caring for the flowers, visiting shows, pollinating, harvesting and planting seeds, and digging bulbs.

My wife has never forgiven herself.

MARIONETTE AND MUSTARD SEED

Recently in reading an article by Alec Gray in the *Journal* of the Royal Horticultural Society (September 1965, p. 375) I noticed this statement: "From *poeticus* crossed with *asturiensis* I raised 'Mustard Seed' and 'Marionette,' nice little plants, the latter being the only real miniature I have produced so far with a red edge to its cup. I have lost both, but I think they persist in America." As I had believed that all the miniatures we have in Division 2 and 3 had jonquil (including *N. watieri* or *N. rupicola*?) blood instead of *poeticus* this gave me a new appreciation of these two cultivars as possible breeding material for fertile miniature 2's and 3's. Mary Lou Gripshover has some seedlings from Bagatelle x Mustard Seed which show interesting variations in form and cup color. I hope others will follow her lead.

—ROBERTA C. WATROUS, Washington, D.C.

ORIGINS OF THE PUYALLUP VALLEY DAFFODIL FESTIVAL

The Puyallup Valley Daffodil Festival is an outgrowth of the daffodil industry in the Greater Puyallup Valley. The numerous large bulb fields in early days gave the community a large number of daffodil blooms, for which they had no use at that time. Mostly they were simply plowed under as fertilizer. Millions of blooms annually were treated in this fashion.

A Tacoma photographer, Lee Merrill (presently a Daffodilian), came up with the idea of having a parade of sorts featuring daffodils as live decorations. Prior to this idea, the Puyallup Valley had several events which honored the daffodil industry.

One early annual event of spring was the Charles Ortons' famed "Tea," for the socialites of the day to honor the spring beauty of their new valley crop of bulbs.

Sumner's long-time annual Fishermen's Banquet became "The Bulb Banquet," and it honored the new bulb industry and the "Bulb" show of blooms in the high school gym was a colorful event.

"Bulb Sunday" became a celebration of sorts when area Chamber of Commerce delegates met with growers and the flower show people and promoted a tour of the Valley on a given Sunday, when the bulbs were in their fullest bloom. Ads and maps were displayed in the various local newspapers, giving directions to the fields.

So there they were—three forerunners of the festival itself—Bulb Banquet—Bulb Show—Bulb Sunday.

Then came that historic meeting in 1934. (Until then bulbs were sold by the ton, and the flower which represented only about 10% of the ultimate weight was regarded as virtually worthless, hence the plowing under.) Merrill and Valley growers decided they could have a parade of bicycle riders wearing garlands of daffodils as is done in Holland at Easter time with tulips . . . a happy time with people from all around . . . even a queen.

When growers decided to start cutting the long-stemmed blossoms, it was the beginning of the concept of the "Daffodil Festival" as it is known today. Bicycles gave way to cars decorated with fresh-cut daffodils and the "queen" sat in a beautiful grand monument of daffodils, built by Lorenzo Ghilarducci, to the delight of photographers . . . at 12th and A Street in Tacoma.

(The first queen was chosen at random, she happened to be the first pretty girl who happened by after the decision was made to have a parade.)

Bulbs still sell by the ton, and now the flowers are seldom allowed to bloom but cut and put into cold storage for the cut-flower industry, but for 40 years, or so, there has been a Daffodil Festival to salute spring, to bring pleasure and profit to the Greater Puyallup Valley, thanks to the vision, the long hours of hard work, the backing of growers, and the support of thousands of citizens who support the Festival by buying Booster Buttons.

The Festival story is also told in the 20,000 brochures sent out annually, as well as the 5,000 pictorial programs. Articles and photographs are sent all over the United States, even abroad, urging people to come and greet spring in Daffodil-Land. We have become known as the "birthplace of spring."

Some of the positive results of the Puyallup Valley Daffodil Festival include area identification. Also, the Daffodil Festival has grown until it is now the *THIRD* largest floral festival amongst the membership of the International Festivals Association. The Pasadena Tournament of Roses and the Portland Rose Festival precede us.

Beauty is our business, and it has become big business. Daffodil-gold has become a boon to the area's business community. Tourism is encouraged, and last year package tours for seventeen tour groups were arranged by Festival personnel. The total economic input to the area is about two-million dollars, including the Festival budget. This figure does not include the undetermined value of the bulb industry itself to the area; the value of the cut-bloom industry; or the city and county athletic budgets for Festival sporting events.

We invite you all to visit Daffodil-Land, the home of King Alfred in the Greater Puyallup Valley. His subjects are magnificent as they spread their golden mantles over the fields beneath the snow-clad slopes of majestic Mount Rainier. Come greet spring with us, and see our "Festival of Flowers."

—JAN BUSSEY, *Festival Public Relations*

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OFFICERS OF THE SOCIETY

MRS. JOHN BOZIEVICH, *President*

6810 Hillmead Road, Bethesda, Md. 20034

MRS. ERNEST K. HARDISON, JR., *First Vice President*

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MRS. MARVIN V. ANDERSEN, *Secretary*

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WELLS KNIERIM, *Treasurer*

31090 Providence Road, Cleveland, Ohio 44124

Executive Director — WILLIAM O. TICKNOR

Tyner, North Carolina 27980

(Tel. 919-221-8388)

All correspondence regarding memberships, change of address, receipt of publications, supplies, ADS records, and other business matters should be addressed to the Executive Director.

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Chairman of Publications

Mrs. Robert Cartwright

1216 Goodloe Dr.

Nashville, Tennessee 37215

(Tel. 615-373-0814)

Editor, Daffodil Journal

Mrs. Paul Gripshover

Rt. 3, 1206 Natchez Road

Franklin, Tennessee 37064

(Tel. 615-790-6202)

Articles and photographs (glossy finish) on daffodil culture and related subjects are invited from members of the Society. Manuscripts should be typewritten double-spaced, and all material should be addressed to the Editor.

DEADLINE FOR THE NEXT ISSUE IS JULY 15, 1981

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THE COVER PHOTO

is of *N. scaberulus* 10 Y-Y, winner of the Miniature Gold Ribbon at the National Convention Show, exhibited by Robert Spotts of El Sobrante, California. (Gripshover photo)

THE CALIFORNIA CONVENTION

FRANCES ARMSTRONG, Covington, Virginia

Photos by Mary Lou Gripshover

When my husband, LaRue, and I arrived in San Diego, California, for a weekend stay prior to the 1981 ADS Convention in nearby Newport Beach, we found it difficult to believe that we had come to see daffodils. The weather was balmy, the swimming pool our delight, and tropical flowers were in bloom everywhere. Memories of other conventions and other visits to daffodil gardens both here and abroad flooded our minds. In bitter cold, and sometimes rain and snow, we had tramped through daffodil fields wrapped in layers of clothing. To find daffodils here in summer weather seemed an impossible dream.

Our arrival at the beautifully landscaped Del Webb's Newporter Inn only heightened our apprehension. Marigolds were there, impatiens and petunias, things that bloom in the East long after spring bulbs are gone and forgotten. But we had failed to remember two things: the daffodil is an adaptable plant and California is indeed a fantastic land.

The National ADS Show on Thursday quickly dispelled our worries. Many daffodils were exhibited and many good ones. While a few entries had come from far away places such as Oregon, Delaware, Maryland, Indiana, Tennessee, and Ohio, most of the competitive exhibits were from California.

Our former president, Bill Roese, won the Gold Ribbon with an immaculate bloom of one of his own originations, La Paloma, 3W-GYR, while the Miniature Gold Ribbon was awarded to Robert Spotts for an outstanding bloom of *N. scaberulus*. Jay Pengra, the very able chairman of the show, was awarded the coveted Carey E. Quinn Gold Medal and also the Silver Ribbon, just compensation for his hard work. Unfortunately, there were no entries in many of the National ADS Show Awards classes. Marilyn Howe, however, put up an interesting exhibit in winning the Carncairn Cup and Gerard Wayne received the Northern Ireland Award proving that Irish daffodils do exceedingly well in Southern California's warm climate. Nancy Wilson earned the Matthew Fowlds Medal with a very large and well colored Foundling, and Harold Koopowitz garnered the Olive W. Lee Memorial Trophy for a cyclamineus seedling as well as the Hybridizer's Award for twelve of his own cultivars. Many of our California members are hybridizing and it was quite evident in this show that they are breeding some unique daffodils, especially from the neglected upper divisions.

The Junior Section was filled with a fine variety of exhibits. Marta Wayne, carrying on the family tradition, won the award for the best standard daffodil in the Junior Section with a Carncairn seedling and took the ADS Miniature White Ribbon as well for three well matched blooms of Snipe entered in the regular classes. Another second generation exhibitor, Nathan Wilson, received two blue ribbons.



Phil Phillips and Jay Pengra admire the winning Carey E. Quinn Gold Medal collection.



Top: left, LaPaloma; right, Foundling. Bottom: left, *N. t. ochroleucus*; right, Koopowitz E576-1 (Binkie x *cyclamineus*).

To those of us from less salubrious climates, the large number of tazettas and poetaz exhibited in this show were a joy to behold. Two stems of lovely *N. t. ochroleucus*, one of which had seven blossoms plus a bud, were a thrill to some of us previously unacquainted with it. Additional tazettas and poetaz were on view in pots and in an exhibition of hybrid seedlings brought over from England by Miss Barbara Fry of Rosewarne in Cornwall.

To round out the show there was an unusually large exhibition from our commercial growers: Grant E. Mitsch Novelty Daffodils, Murray Evans, and Melrose Gardens, all on our West Coast, and from Mrs. J. Abel Smith in England. A splendid educational exhibit on point scoring, forced daffodils, planting in pots, sources of bulbs, and classification completed a very interesting show.



Top: Part of the Murray Evans display. Bottom: Barbara Abel Smith with some of her daffodils.

Our hosts for the convention were the members of the Southern California Daffodil Society, a small group but a dedicated and energetic one. They left no stone unturned in preparing for our pleasure which began on Thursday evening with a sumptuous get-acquainted party in a lovely room adjoining the show room. The 120 of us in attendance had a fine time greeting old friends, meeting new ones, and taking another look at the show.

Friday was our symposium day. Four speakers discussed modern trends in daffodil hybridizing while illustrating with slides the results of their work.

Dr. Harold Koopowitz, Director of the Arboretum at the Irvine Campus of the University of California, spoke of his goal of lengthening the season, already early November to May in his climate, by using the pollen of *N. serotinus* which he can get to bloom any month of the year. Another goal is breeding better tazettas and poetaz. A fortuitous side result from this endeavor has been Division 3 flowers with tazetta vigor for warm climates.

Graham Phillips of New Zealand took us on a tour of what is happening there with new cultivars and with breeding. The eighty slides exposed us to "some of the more virulent symptoms of Yellow Fever." There has been an explosion of work in New Zealand, not only in the first three divisions, but with cyclamineus and tazettas as well.

In Tasmania David Jackson, a third generation hybridizer, finds pleasure and peace in growing daffodils. As in Northern Ireland this small island of 500,000 people has produced an inordinate number of good hybrids, mostly standards. C. E. Radcliff produced and stabilized the first pinks, the first new color in daffodils not found in nature. David's father, William Jackson, Jr., produced the first pink doubles, Lawali, introduced in 1966, and Chimeon, introduced two years later. Tasmania now has nine active breeders.

In 1963 Dr. Tom Throckmorton started breeding in Iowa with two goals: to obtain Division 3 reverse bi-colors and to get more color into Division 3 flowers. Both goals have been achieved. His slides vividly showed the changes in color of his "toned" daffodils as they mature. "Toned flowers are fun to watch," he says, "as they change from day to day." Dr. T. and his wife, Jean, share in the joy of picking a bouquet of "something you did." "Breeding can be fun," he said, "and you just may get other things outside your immediate goal."

After lunch Miss Barbara Fry of the Rosewarne Experimental Horticulture Station, Cornwall, England, told us of breeding for the cut flower trade there. Many tazettas, especially Soleil d'Or, are grown on the Isle of Scilly which is frost free. In some years these bloom as early as October. The late Harry Tuggle of Martinsville, Virginia, discovered the poetaz, Matador, was fertile. At Rosewarne it has been crossed with Soleil d'Or with good results. Some of



Graham Phillips, Tom Throckmorton, and Robin Hill enjoy the tour.

these bulbs have been sent to Scilly, and Rosewarne is waiting to see what they will do there. Miss Fry also discussed other crosses tried at Rosewarne and showed us seedlings from these crosses. Bulbs are put into plastic netting with plastic clips in between and thus planted. Three years later they have increased within the nets. "Whatever we plant, we know we are going to lift," she says.

After some brief instructions by Phil Phillips of New Zealand on packing and exhibiting daffodils, a judges' refresher course was taught by Bill Roese, who showed new cultivars, and by Jack Romine who gave us a lesson in point scoring graphically and cleverly illustrated with large cut-outs.

Judging was also the concern of the remainder of the day's program. "Judging Miniatures and Species" was Nancy Wilson's topic while Dr. Koopowitz gave us points to consider in judging Divisions 5-12. Having listened to all these informative speakers, those of us who were there should not only be better judges but better exhibitors as well.

Following the Friday evening banquet President Marie Bozievich presided over the Annual Membership Meeting. She reported the Society to be vigorous, healthy and growing, having passed the 1600 mark in membership. The *Journal* has expanded to 64 pages and won an award from the National Council of Garden Clubs this year. Our test gardens have been greatly expanded and will be monitored and correlated by the chairman. A new committee is working on an award for a garden daffodil and the Handbook Committee is preparing a new handbook projected for 1981. We have two new round robins and additional members in several of the old ones.

The treasurer, Wells Knierim, reported the Society to be in good financial shape. Future profits from the conventions will be added to the research fund which now totals \$15,068.

At this time we were welcomed by the convention chairman, the very efficient and always serene Marilynn Howe.

Mrs. Jesse Cox, chairman of the nominating committee, presented her report which was unanimously adopted.

The meeting was closed with the awarding of the Society's medals and National Show Awards. For the second consecutive year both the Gold and Silver Medals of the American Daffodil Society were awarded and both to most richly deserving persons. Miss Barbara Fry was the recipient of the Gold Medal for work of a preeminent nature in the advance of the daffodil and the Silver Medal for service to the Society was awarded to our hard working and beloved Louise Hardison, first vice-president of ADS.

Our day long bus tour on Saturday took us first to Rogers Garden where we were excited by their colorful display of over 500 kinds of plants and every possible garden accessory all arranged in alluring garden settings. Their claim of being "America's most beautiful garden center" was not disputed by any of us.

We were greeted at the arboretum of the University of California at Irvine by our friend, Dr. Koopowitz. Here to our amazement we found daffodils happily growing in trenches to catch the sparse rainfall while we walked along the hills between the rows. What a switch for us easterners!

Many enticing plant collections were to be seen at the arboretum, no doubt the most outstanding being the collection of South African bulbous plants growing in a screen house. All have been grown from seed by Dr. Koopowitz and therefore are free of the diseases to which they are subject in their native land.



Left: Polly Anderson and Barbara Fry at Rogers Garden. Right: Harold Koopowitz and Helen Trueblood at the Arboretum.



Jack Romine and Marilyn Howe at the Arboretum.



Jean and Tom Throckmorton, Quentin Erlandson, Pat Lee, and Donald King pause for refreshments at the Sherman Gardens.

A pleasant drive south brought us to San Clemente and a delicious lunch at El Adobe Dining after which we visited the lovely old Mission San Juan Capistrano. (The famous swallows seemed to have turned into pigeons for our visit.)

The Sherman Library and Gardens in Corona del Mar was our final stop. Here we discovered an artfully constructed series of intimate gardens with an astounding variety of plants in bloom, from daffodils and camellias to zinnias and roses, from the familiar to the exotic, all immaculately maintained and neatly groomed. We could have lingered for many hours but a late afternoon Board of Directors meeting called us back to the Newporter Inn.

After the bountiful buffet dinner Saturday night our overseas members were recognized by our president. Eighteen of them were with us from Holland, England, Northern Ireland, Canada, New Zealand, and Australia. Our overseas membership is growing rapidly, and having some of our international friends with us adds much interest to our meetings.

An invitation to the 1982 convention to be held in Nashville, Tennessee, on April 1 and 2 was issued by Sally Stanford. It was also announced that the 1983 convention will be in Williamsburg, Virginia.

Following dinner Wells Knierim entertained us with slides of daffodils growing under natural conditions. His expert and artistic pictures of daffodils as they grow in gardens all over our country and in other lands, too, was a fitting finale to our glorious three days in the never-never land of Southern California. To the members of the Southern California Daffodil Society we give our grateful thanks.

TAZETTA BREEDING AT ROSEWARNE

BARBARA FRY, *Cornwall, England*

The Isles of Scilly have a unique climate in Northern Europe. They are situated about 20 miles off the coast of Cornwall with an oceanic climate which is frost free. *Narcissus tazettas* are grown very successfully throughout the winter months for cut flower production, the main cultivar being *Grand Soleil d'Or*.

By 1964 the Scillonian growers were not producing very heavy crops of *Soleil d'Or* which are their mainstay of income during the winter months. There may have been several reasons for this but it was thought that the main problem was the many strains of virus present.

It was suggested that since at Rosewarne we had started a breeding program for early trumpet and cup daffodils suitable for cut flower production, we might also attempt a similar program for tazettas. They would need to be early flowering, preferably with yellow perianths and orange coronas.

Soleil d'Or is recorded as being fertile both as a seed and pollen parent and we thought it would be the best parent to use since it is also the best shape and color of its type.

We would have to do all the pollinating in a heated glasshouse, and bulbs of *Soleil d'Or* were obtained from Scilly to pollinate during the winter of 1965. We used the few yellow tazettas available at that time together with the pollens of many bright yellow-red long cups. We produced only three seeds from British Charm pollen and six seeds from Armada. These germinated and grew eventually into bulbs but still had not flowered when seven years old, so were discarded. We also had a few seeds from French Sol, a rather ragged pale yellow tazetta from France. Some of these germinated but did not thrive at Rosewarne, so these were sent to Scilly where two yellow-gold selections were kept.

In 1966 and 1967 we again pollinated large numbers of *Soleil d'Or* with a wide range of pollens from tazettas and red cups. We tried higher temperatures and supplementary lighting but still produced no seed.

By 1968 we had collected together a number of yellow perianth cultivars. These included Autumn Sol which we had from New Zealand many years ago. Since it breeds true from seed it is probably some obscure species. It has small florets of pale, rather muddy, sulphur color and gold straight sided cups. Its main value is that it flowers at Rosewarne from September or October through to December. We also acquired Newton, an early yellow tazetta growing mainly in Tresco at that time. We had some Paper White and a yellow tazetta from France which we have registered as French Sol. From Mr. Hannibal in California we acquired a few bulbs of *tazetta aureus*. We again included *Soleil d'Or*, which were housed over a period of eight weeks, and nearly 100 crosses were made but it was again a miserable failure as were all the red cups pollinated with tazettas.

However, we did have success using the other cultivars for the first time and viable seed was produced by intercrossing Autumn Sol, Newton, French Sol, and *aureus*. The seed was sown in open frames, lifted two years later and planted in beds in the open. Surprisingly a few flowers appeared in November, 1972, and continued until late January, 1973. We covered them with lights when it became frosty since we do not know how hardy they are. A number of selections were made over the next two years. Some of the best earlies came

from Autumn Sol and Newton crossed both ways. The brightest corona colors came from French Sol x Autumn Sol and include two clones which open with bright orange red coronas which are much more colorful than Soleil d'Or but of quite a different shape. Seedlings with *aureus* as one parent flowered later in December - January and some had brilliant dark yellow perianths tending to reflex with rich gold shallow coronas. Some had over long pedicels while some are very free flowering. All these seedlings had ten to sixteen florets on the main stems and are highly scented.

We have sufficient bulbs from the best of these selected clones to plant on our sub-station in Scilly where we can test them under better conditions without protection. At Rosewarne this series generally flowers from early October to late January but in Scilly the earliest flowering clones tend to start a little later. This may be due to their drier sandy soil preventing early rooting. By November they continue to flower and grow more steadily with longer stems in Scilly where there is less variation in temperature.

We are growing a few bulbs of each at Rosewarne which we are prepared to cover if severe frost threatens but we have also planted bulbs of some clones in the open to test for frost hardiness. We are also growing a few virus tested bulbs of each in an aphid proof house.

From this series we should be able to select a succession of clones to flower before natural season Soleil d'Or in January in Scilly. At present the Soleil d'Or crop is forwarded to flower from late November by multiple burning over of the crop in the ground, using propane burners.

I started a correspondence with Harry Tuggle in 1969 shortly before his untimely death. We exchanged ideas and information on tazetta breeding, particularly using Matador which he had found to be fertile.

We eventually acquired his mixed seedling stocks of Matador x Soleil d'Or, *jonquilla* and Jezebel mixed with *jonquilla* from which over the years I have made a number of interesting selections. The Matador x Soleil d'Or seedlings flower through the winter and the best of them have bright yellow perianths with orange-red coronas and up to six florets. By 1971 I had a few bulbs of Matador flowering in a pot under glass which I pollinated with Autumn Sol, French Sol, Newton, and *tazetta aureus*. From these I made two selections from Autumn Sol, the most interesting of which has up to six large florets of white with bright gold coronas, a rather extraordinary color from such parents. The time of flowering has varied at Rosewarne from late October to February. However it is growing vigorously and we had sufficient bulbs to plant some in Scilly last year, where we can see better how it will perform.

During 1971 I included some *poeticus* to use both ways with the fertile yellow tazettas. I thought that there was a better chance of producing seed but that the flower colors might be poor by crossing whites with yellows, and this was generally so using the tazettas as seed parents. Seed set was better than usual and germination about 50%. Despite the fact that the tazettas were all autumn or winter flowering, most tended to flower in the spring. The best flowers came from using the *poeticus* as seed parents which flowered during March and came in various shapes and sizes with white perianths and yellow coronas with three or four florets per stem. While some red or orange rimmed cups might have been expected, in fact only one or two had a hint of gold in them.

Two different but rather attractive clones came from using *tazetta aureus* pollen on Caedmon and on *poeticus Ornatus Maximus*. Both have pale clear yellow rounded perianths with greenish yellow coronas and up to six florets each. One rather odd result from this batch of pollinations came from a yellow unnamed *tazetta* crossed with *poeticus Ornatus*. This flowers from November through the winter and often has as many as 18 small florets of white and yellow. This would probably flower more regularly in Scilly.

Later pollinations included other *poeticus* as seed parents, using various *tazettas* as pollen parents including *Gloriosus* for the first time. Some seed set and grew to flower; and the best of all came from the poets crossed with *Gloriosus*, most of which had three or four florets, but one from *Cantabile* has six or eight florets. All are white with yellow coronas in varying shapes on fairly tall stems and all follow the poet parent for time of flowering from mid-March into April.

In 1970 we again potted *Soleil d'Or* and pollinated them with both *tazettas* and red cups. In this year we produced a few seeds from red cup pollens. Some of these germinated but proved to be very weak growing and never flowered. Just one selection was made which might be useful from *Soleil d'Or* × *Porthilly* which is increasing well. This has two to four florets, 7 cms in diameter with pale yellow perianths and bright yellow coronas, flowering in late February. I made about 50 pollinations on *Autumn Sol* using cups and poets resulting in some seed from *Raeburn* which eventually produced flowers of very poor colors and shapes. I also had one seed from *Ballymarlow* pollen, the bulbs of which we have kept. It has three to four florets on tall stems with broad, smooth pale lemon perianths 6.5 cms in diameter and coronas of dark orange. Despite its *Autumn Sol* parentage it does not flower until early March. In 1975 I used its pollen on *Matador* resulting in three seeds, one of which grew. This flowered in March, 1980, with four florets on a tall stem with clear yellow perianths and dark orange-red coronas which were larger than the seedling parent. I repeated this cross in 1980 producing 30 seeds most of which have germinated. It seems rather extraordinary that the pollen is fertile from a *tazetta*—long cup cross, but even more odd is that in 1976 I collected 29 seeds from open pollinated flowers growing outdoors. From the arrangement of style and stamens these were probably selfed. Only four bulbs grew, but one flowered for the first time in December on an eight inch stem with three florets and only three leaves though more foliage has grown since. The florets were a little smaller than the parent but were otherwise very similar. In mid-February another bulb flowered with three florets which were larger and the corona even more brightly colored. Both flowers bear some resemblance to the seedling parent. In 1979 I collected a further 57 seeds open pollinated and about half have germinated and are growing well with five or six leaves each in a heated glasshouse.

Each year I pot some *Matador* with varying results for I do not always obtain seed. I have found that many of our own autumn/winter flowering seedlings are fertile and I have tried the pollen of many of these with interesting results. The flowering time is shifting to earlier flowers with some in autumn and are poetaz in appearance. Many are well shaped with brilliant orange or red coronas and perianths varying from deep cream through to bright yellow, usually with four to six florets on each stem. I also have a few bulbs resulting from crosses between *Matador* and red large cupped cultivars. A few flowered in 1980 and most of these first stems were single headed but a few were twin headed and about 7 cm in diameter.

For the last three or four years I have been working on white tazettas, hopefully to produce earlier flowers than those at present available for cut flower production in Scilly. It would be useful to fill the gap between Paper White in November - December and Scilly White in early February.

To breed tazettas and poetaz, difficult as they are, requires patience and perseverance. Repeating crosses over and over again results sometimes in success. The range of pure tazettas to use as parents is narrow but we have eventually bred some interesting flowers from them which are different in appearance and time of flowering. They can be very frustrating to work with compared with most other divisions in that even when they have apparently set seed, the pods will swell up and then abort. They can even reach the stage when seed is apparently ripe, only to find empty seed shells. When seed is produced, I find that germination is not very high, though it is better since we have been growing them under glass. Sometimes, bulbs will grow into seven or eight leaf plants and yet never flower. From our experience, Matador offers great opportunities in producing new poetaz cultivars.

MRS. J. ABEL SMITH

Offers

PINK DAFFODILS

Also other choice EXHIBITION and DECORATIVE
varieties including NEW HYBRIDS raised at.—

Orchard House

Letty Green nr. Hertford, England

Descriptive list free on application

BULLETIN BOARD

Where Can I Get . . . ?

CULTIVAR:

Lanena 1 W-P

Eastern Dawn 2 W-P

Goldeneye 3 W-Y

DESIRED BY:

Mrs. Orville Nichols, 11119 College Rd.

Olive Branch, Mississippi 38654

"Tag" Bourne, 1052 Shadyhill Drive

Columbus, Ohio 43221

Find it Here . . .

Offsets of the poets Felindre, Lady Serena, Milan, Perdita, and Stilton available in exchange for poets—or miniatures—I do not have. Send self-addressed, stamped envelope stating what correctly named poets or miniatures you would like to trade to Mrs. M. S. Yerger, P.O. Box 97, Princess Anne, MD 21853.

MINIATURE SEEDLINGS

By action of the Board at the March 25, 1981, meeting, miniature seedlings are permitted to be entered in all classes for miniatures on the Approved List of Miniatures. They must be properly identified by the originator. This would now permit such seedlings to be exhibited in the Watrous collection. A word of caution: once the seedling has been named, it *can not* be shown in a miniature class *until* the Miniature Committee has approved it and the name has been published in the *Journal* on the Approved List.

TEST GARDENS

Requests have been received to start five new test gardens. If you can supply three bulbs each of correctly named, clean stock, please send a list of your available cultivars to Test Garden Chairman Ruth Pardue, 2591 Henthorn Road, Columbus, Ohio 43221. Instructions about where to send which cultivars will be sent to you. Hopefully this way, duplications can be avoided.

DAFFODILS TO SHOW AND GROW

In the list of hybridizers in *DTS&G*, please make a note that E. L. Agee is from the USA.

COMING EVENTS

October 23-24, 1981	ADS Fall Board Meeting, Dallas, Texas
April 1-3, 1982	ADS Convention, Nashville, Tennessee
April, 1983	ADS Convention, Williamsburg, Virginia

A COLONIAL GARDEN

The following are listed as authentic for restoring a colonial garden in *Colonial Gardens* (Rudy Favretti, Gordon De Wolf, Barre Publishers, Barre, Massachusetts, 1972).

Narcissus jonquilla: named in Gerard's Herball, 1596.

Narcissus poeticus: Old Pheasant's Eye, England, 1590.

Narcissus tazetta: Gerard's Herball, 1596; Also observed by Clusius, January, 1565, in Spain and Portugal and in February, 1566, at Gibraltar.

Narcissus triandrus: Clusius says a French herbalist named Nicolas le Quelt, who searched the Pyrenees and Spain every year, introduced it in 1599.

Narcissus odoratus: Clusius observed them in flower in April, 1595, in the garden of Theodore Cluyts, prefect of the Academic Garden at Leyden, Holland.

Narcissus pseudonarcissus: Parkinson, 1629, lists several doubles. Native in Belgium and Portugal, naturalized in Scandinavia at the period.

I am interested in comments about the above dating but I also am anxious to know sources who might donate any of the above to an educational project, namely the restoration of a colonial garden at Rockingham, General Washington's Headquarters in Rocky Hill, New Jersey. Donations are tax deductible and may be sent to Adra Fairman, 88 N. Stanworth Drive, Princeton, N.J. 08540.

AMERICAN DAFFODIL SOCIETY, INC.
INCOME AND EXPENSES — YEAR ENDED DECEMBER 31, 1980

INCOME:

Dues Paid in 1980	\$10,078.47
Life Memberships Paid in 1980	900.00
Contributions (in memory of John and Betty Larus)	10,011.00
Sales of Books, Supplies, etc.:	

	Income	Expenses
R.H.S. Yearbooks	\$ 701.25	\$ 595.88
A.H.S. Handbooks	300.00	—
Daffodils to Show and Grow	1,135.35	450.00
Handbook for Judging	168.59	—
Binders for Journals	6.80	554.19
Old RHS and Out of Print Books	745.59	252.43
A.D.S. Publications	351.53	—
A.D.S. Membership Pins	390.00	313.00
Data Bank Printouts and Binders	594.23	669.52
Show Entry Cards	463.00	255.94
Color Charts	125.00	168.86
Daffodils in Ireland	115.00	—
Medals, Ribbons and Trophies	37.80	553.59
Registration Fees	39.00	28.00
Misc. — Barr	8.00	—
	\$5,181.14	\$3,841.41

Advertising in Journal	1,339.73
Judges' Certificate Fees	780.00
Slide Rentals	52.00
Interest Received	228.00
Convention Surplus (Memphis)	3,295.48
Fall Board Meeting Surplus (Indianapolis)	3,102.81
Schools Surplus	917.78
	74.28

TOTAL INCOME

\$30,779.55

EXPENSES:

Daffodil Journal-Printing, Envelopes and Mailing	\$9,009.14
Roster-July 1, 1980	880.13

Office Expenses:

Printing and Supplies	\$ 624.00	
Postage	600.00	
Executive Director	3,000.00	
Social Security Tax	183.88	4,407.88

Regional Vice-Presidents (Newsletters)	555.83
Secretary	91.68
Committees	200.98
Donation to Cancer Society (in memory of Mildred Simms)	500.00
Miscellaneous	126.57

TOTAL EXPENSES

\$15,772.21

AMERICAN DAFFODIL SOCIETY, INC.
BALANCE SHEET — DECEMBER 31, 1980

ASSETS:

Cash in Bank-Bank of North Carolina	\$ 2,550.55
Savings Certificate, 6½%, expires 3-1-81, New Canaan Sav. Bk.	3,393.60
Savings Certificate, 7½%, expires 5-1-82, New Canaan Sav. Bk.	2,436.10
Savings Certificate, 6%, expires 5-17-81, Bk. of No. Carolina	2,612.50
Money mart Assets, Bache	7,920.11
Corporate Income Fund, Bache, expires 4-28-81	15,400.50
Ford Motor Credit Corp., 8½% Bonds due 3-15-91	10,000.00
Accrued Interest not due	247.90

Inventory of Publications:

R.H.S. Yearbooks '79 (35)	\$140.30	
Old R.H.S. Yearbooks and Out of Print Books (91)	204.50	est.
A.H.S. Daffodil Handbooks (987)	98.70	
Handbook for Judging (580)	187.92	
Binders for Journals (100)	530.00	
Show Entry Cards (11,400)	145.92	
Daffodil Data Printouts (24)	240.00	
Daffodil Data Binders (74)	213.12	
Brief Guide to Growing Daffodils (1675)	376.88	
Daffodils in Ireland (33)	100.65	
A.D.S. Membership Pins (69)	308.43	
R.H.S. Color Charts (7)	80.15	2,590.47

Inventory of Medals and Trophies:

Medal Dies	15.00	
Gold and Silver Medals	493.66	
Larry M. Mains Sterling Trays, min. replicas (6)	270.00	778.66

TOTAL ASSETS

\$47,930.49

LIABILITIES:

Dues Paid in Advance (in whole or in part)	\$ 7,849.56
Life Memberships	11,400.00
John and Betty Larus Educational Research Fund	15,768.24
Net Worth	12,912.69

TOTAL LIABILITIES

\$47,930.49

AUDIT STATEMENT

The above income statement and balance sheet for the year 1980 were prepared using the cash receipts and disbursements records maintained by the Executive Director. The balances were verified with the bank statement and account statements of the financial institutions indicated. The inventory of publications is shown at cost except that no value is included for surplus ADS publications. In addition to the assets shown, the Society has a substantial library of books on daffodil culture, many of which are rare and valuable, and several colored slide collections. It also has a number of memorial silver trophies awarded at convention shows. The slides, books, and trophies were mostly contributed and no value is included.

Dues received in the current year, covering periods beyond the end of the year, were prorated and amounts covering such future periods are shown as a liability as are life memberships.

Receipts for dues and other income were verified with deposit slips and disbursements were checked with suppliers' invoices and cancelled checks signed by the Treasurer and the Executive Director.

Based on this review, it is my opinion that this report presents an accurate statement of the financial condition of the Society and that the records are being maintained in a sound and orderly manner.

WELLS KNIERIM

REPORT OF THE COMMITTEE ON HEALTH AND CULTURE March 25, 1981

In the March, 1980, number of the *ADS Journal* I quoted from the revised USDA Leaflet #444 a recommendation that DYLOX R be used as a replacement for chlordane for the control of the Narcissus Bulb Fly. In doing so I was unaware that it might be difficult for the Society's members to find that chemical.

Recently one of our members wrote to report he had been unable to find DYLOX in his area. When I looked for it in the Gainesville region I had the same experience. I then wrote to Dr. Ralph E. Webb of the USDA who had written the leaflet, asking for help. A few days ago I received his reply. He suggested I get in touch with the supplier in my region for more information. I did so and am now able to list the free phone number of each regional city where the DYLOX manufacturer, the Mobay Chemical Corporation, has an office. I suggest that interested persons phone the appropriate number for more information as to a local source of the chemical.

Additional information on this subject has come from our former president, Dr. William Bender, who has learned that DYLOX is sold in cartons of ten units, each unit being five pounds in weight. Total cost of the ten units is \$220.00. In other words it is apparently put up for the big commercial grower and is not intended for the home gardener.

The Mobay phone numbers are:

Portland, Oregon	800-547-9671
Fresno, California	800-374-2196
Omaha, Nebraska	800-228-2247
Dallas, Texas	800-527-9685
Kalamazoo, Michigan	800-253-3282
Memphis, Tennessee	800-238-6370
Hopeville, Georgia	800-241-8326
Cherry Hill, New Jersey	800-257-8286

WILLIS H. WHEELER, *Chairman*

HYBRIDIZERS AND THEIR INTERESTS

An enthusiastic group of hybridizers met for breakfast at the California convention, and among other things, decided that a list of hybridizers and their primary field of interest should be published. Should you find that you share someone's interest, perhaps a mutually beneficial correspondence resulting in shared ideas, pollen, and bulbs could be begun. If your name is not on the list, please send your name and area of interest to Dr. William Bender, 533 S. 7th Street, Chambersburg, PA 17201, Chairman of the Breeding and Selection Committee.

NAME AND ADDRESS

Bill and Laura Lee Ticknor
Tyner, North Carolina 27980

F. R. Coles, 29 Glenburnie Rd.
Mitcham 3132, Australia

Nancy Wilson, 571 Woodmont Ave.
Berkeley, CA 94708

Nathan Wilson, 571 Woodmont Ave.
Berkeley, CA 94708

Graham J. Phillips
R.D. 1, Hamilton, New Zealand
Robin Hill, Kaimatarau Road
No. 3 RD Palmerston North
North Island, New Zealand

David Jackson
P.O. Box 77, Geeveston, Tasmania
7116

Barbara Fry
Rosewarne Experimental Station
Camborne, Cornwall, England

Helen K. Link
Box 84, Brooklyn, Indiana 46111

Phil Phillips
Box 177, Otorohanga, New Zealand
Gerard H. Wayne
9509 Gloaming Dr.
Beverly Hills, CA 90210

Ken Dorwin, 1124 Dulzura St.
Santa Barbara, CA 93108

Bill Roese, 903 Amberley Place
Santa Maria, CA 93454

Jay Pengra, 954 St. Katherine Dr.
Flintridge, CA 91011

SPECIAL INTEREST

Miniatures, "red" trumpet, "red" daffodil

Early yellow trumpets, Division 6 and 8

Miniatures

Doubles, a clean neat split, tazetta split, miniature splits, cyclamineus, very small doubles.

Tazettas, pink/yellows, "earlies" in all divisions, 1 W-P and 1 W-R

Good contrasting 1 W-Y and 2 W-Y, Pinks of good clear color, as well as being consistent.

3 Y-Y, 3 W-P, improving 1 W-P, 1 W-Y

Early flowering tazettas and poetaz. Early flowering cut flower cups and trumpets. Disease resistance in new seedlings, particularly commercial cut flower types. Early flowering doubles. Pink cupped miniature triandrus

Improving everything except flowers that change color.

6 W-P, 6 P-W (!), 6 P-P (!!)

1 W-GWW of exceptional vigor and show qualities that are mid or early mid-season—no later.

Pinks, tazettas

Early blooming, colorfast flowers that grow well in my particular region.

Standards & miniatures that perform well in our area.

Barbara Abel Smith, Orchard House Letty Green, NR Hertford, SG14-2N2 England	Interested in raising 3 Y-W, 3 W-P.
Roberta C. Watrous 5031 Reno Rd., N.W. Washington, D.C. 20008	Miniatures, especially using <i>cyclamineus</i> and <i>jonquilla</i>
W. Lemmers, Kanaalstraat 266, Lisse, Holland	miniatures, especially bulbocodiums
Marilynn Howe, 11831 Juniette, Culver City, CA 90230	Miniatures, Div. 1, 2, 3
Bill Pannill, P.O. Box 5151 Martinsville, VA 24112	General
Tom D. Throckmorton 1420 Woodland Ave., Des Moines, Iowa 50309	Toned daffodils and highly colored Division 3's
Jack Romine 2065 Walnut Blvd., Walnut Creek, CA 94596	Bulbocodium hybrids, miniatures, tazettas, general
Polly Anderson, 4810 Palm Dr., La Canada, CA 91011	Fall blooming tazettas, tazettas crossed with standards, orange perianth suffusions, reverse yellow/pinks, pinks in all classes, split coronas
George E. Morrill, 16302 Apperson Blvd., Oregon City, OR 97045	<i>Jonquilla</i> and miniatures
Otis Etheredge, 600 Penn Creek Rd., Saluda, SC 29138	General
Mrs. Merton Yerger, P.O. Box 97 Princess Anne, MD 21853	Poets and miniature poets
Mary Lou Gripshover 1206 Natchez Rd., Rt. 3 Franklin, TN 37064	Miniatures, pinks, whites, crosses with species when species happen to bloom.
Mike Temple-Smith, 72 Riawena Rd. Montagu Bay, Tasmania 7018 Australia	Novice; 1 Y-R, 1 W-R, 4, 11, 5, 6, 7, 8
Mrs. Margaret Dorling, Amey's Track Via Foster, 3960, Victoria, Australia	General
Bonnie Bowers, R. 1, Box 41K Volcano, CA 95689	General
Kay Haines Beach, Box 13246 Edwardsville, KS 66113	General
Richard Ezell 1341 Lincoln Way East Chambersburg, PA 17201	Neat doubles, expanding the color range of doubles, 4 Y-Y, rot-resistant whites, 3 W-P, miniatures
W. A. Bender 533 S. 7th St., Chambersburg, PA 17201	3 Y-W, standards
Mrs. Ben M. Robertson, P.O. Box 123, Taylors, SC 29687	General

CITATION FOR THE SILVER MEDAL

One particular member of the American Daffodil Society stands out for her service in promoting interest in daffodils over a period of many years. As a teacher in the Judging Schools, she has taught us to discern the merits of the blooms we judge and to examine each entry with fairness and appreciation. She has inspired many of us to be critical in selecting the varieties which we ourselves grow and to exhibit whenever the chance arises.

The American Daffodil Society has never had a more avid exhibitor and competitor. She knows and loves all her flowers, presenting each to its best advantage. She has successfully carried blooms to exhibit throughout the United States. We always look forward to her blooms at the National Shows.

She is the spirit of the Middle Tennessee Daffodil Society and has brought this organization to its present state of activity. Over the years she has been instrumental in planning for three National Conventions in Nashville. Her garden is always open to daffodil enthusiasts.

An international goodwill ambassador for daffodils, she is known, loved, and respected throughout the daffodil-growing world.

The ADS takes pleasure in awarding the Silver Medal to Louise Hardison.

CITATION FOR THE GOLD MEDAL

The Gold Medal of the American Daffodil Society is presented in recognition of creative work of a preeminent nature in the understanding and advancement of daffodils.

The American Daffodil Society has decided to bestow this award this evening to a remarkable person, who has devoted over a quarter of a century to our favorite flower.

During this time the person has been instrumental in producing a new range of flowers and had a strong influence on other hybridizers around the world. Hard earned knowledge has been freely and unstintingly shared and this will benefit all hobbyists in the long run. The flowers created by this breeder are not, however, very familiar to the average daffodil hobbyist but instead are destined to brighten the homes and bring joy to the heart of the everyday citizen.

The Gold Medal of the American Daffodil Society is not bestowed casually or lightly. Frequently many years elapse between its being given. It gives me much pleasure to announce that the American Daffodil Society wishes to recognize and reward services given to the horticultural world in general and to daffodils in particular by Miss Barbara Fry.

WALTER E. THOMPSON

Resolved that the Board of Directors of the American Daffodil Society, Inc., here assembled regrets to receive word of the sudden death of its beloved past president and loyal former board member, Walter E. Thompson, and hereby extends to Mrs. Walter E. Thompson its deepest sympathy and sense of loss.

—From the Board of Directors Meeting, March 28, 1981

FROM A LETTER TO DR. DAVID WILLIS

BRIAN S. DUNCAN, Omagh, Northern Ireland

(from the Newsletter of the Northern Ireland Daffodil Group, January, 1981)

A request to extend my "Aims on Breeding" article to cover background information, etc., has caused much self-searching to trace the origin of my interest in daffodils. We never do know where a step will lead and my difficulty is in pin-pointing that first step which set me on the daffodil trail.

A simple 'why' can be a most difficult question and when once put to me with regard to my daffodil breeding activities I confess I was lost for a satisfactory answer. My head was a whirl of incoherent and confused reasons. That anyone should even ask such a fundamental question was almost inconceivable and unthinkable. In answer I was only able to say "Just because I likes 'em" and quoted the old gardener's saying:

"Different people has different h'opinions,

Some likes carrots and some likes h'onions."

The question lingers, however, and brings me back to consideration of that first step, the influences, the interest, the personal contacts and exposures to daffodils which might have paved the way to a most absorbing and rewarding pastime.

Though I would not rule out heredity and environment as factors, I suspect that being born the fifth of six sons of a County Antrim dairy farmer may be more important. There was no hope of a farm being provided for a fifth son and in any case my interests, as a boy, put bird watching, airplane spotting and modelling, football, hockey, cricket, and even pressing wild flowers before milking, mucking out, and making hay. As a result I went to an Agricultural College, after leaving school, and I took a mild interest in agricultural botany and plant recognition. I was fascinated to learn that man could improve plants by cross breeding. I learnt a little about the famous Ulster varieties of potatoes raised by John Clarke of Ballycastle, the Stormont varieties of oats raised by the Ministry of Agriculture Plant Breeding Research Station. The people who performed these miracles were regarded with awe - they were boffins of an unknown mysterious world to which I could never hope to aspire.

Early exposure to daffodils was limited to Van Sion (though I didn't then know it by name) which I only just remember being uprooted from an out-farm and being replanted by the hundred in straight lines and circles around our new farm house, which was completed about 1939. I also have a fairly vivid memory, from about the same time, of finding an 'odd' daffodil in the orchard which my mother told me was a Pheasant's Eye. For twenty years after seeing the Pheasant's Eye I do not have a single recollection of particularly noticing a daffodil of any kind.

The next step which aroused these dormant and barely recognizable grains of interest was undoubtedly my marriage in 1959. I had to find a house; that house was surrounded by almost half an acre of compacted till and builder's rubble. Pride of home ownership demanded action in that garden so it was plowed and planted in broccoli whilst I sought information and ideas about layout and plants. My ideas were limited to roses and daffodils-every garden had roses and daffodils! Friends who had any knowledge of gardening were pressed into discussion on the topic and snippets of information on daffodils

are vaguely recalled. An office colleague, Mr. William Wilson, told me about having bought Beersheba when it was 1.00 pound per bulb and I think he may have mentioned the name of a certain Guy Wilson but the name did not really register except as sort of confusion with a famous creamery manager from Fintona named Wilson Guy who wrote as Mat Mulcahey for the *Tyrone Constitution*.

Mr. Alan Smith, a former college contemporary who had studied horticulture, produced a landscape plan for our new garden with all sorts of unknown botanical names which stirred my curiosity. I had to put faces to those names and as a result developed an interest in trees and shrubs and other garden plants.

In the autumn of 1960 I bought a collection of daffodils to fit into pockets in the already planted shrub borders. In my innocence and ignorance I thought that Unsurpassable was all that its name implied, Beersheba was the peerless white and that Fortune and Mrs. R. O. Backhouse were steps into the future for color.

These and similar 'wonders' recorded on film were proudly presented to Alan Smith as evidence of my newfound horticultural skill and judgement of selection. Alas, deflation followed. With due regard for my pride, Alan patiently listened to my exaltations and then he diplomatically, but emphatically let me know that perhaps my flowers might not be quite the world-beaters I had imagined. Still incredulous, I wanted to know just how any daffodils could possibly be better. He then told me about Guy Wilson and his daffodils. He told me about working with Guy Wilson in his student days, about helping to set up daffodil displays at the London Daffodil Shows and about the wonderful new daffodil creations from Broughshane.

Alan Smith illustrated the points of improvement sought by hybridists by criticizing aspects of my flowers - form, proportion, substance, texture, symmetry, depth of color, stem, neck and poise. I began to wonder what kind of monstrosities I had dared to present for admiration. I could not immediately be disloyal to my flowers and I lamely replied that I still thought they were nice and that they were good enough for me. I did, however, accept the list of names and addresses of the specialist daffodil growers which Alan Smith gave me - but without serious intent. It was no good! The damage was done! He had destroyed my enjoyment and pride in my flowers. Each and every one was subject to critical examination - they all had many of the faults which had been detailed.

On reporting this story to our clergyman friend, the late Rev. A. E. C. Rowan, he told me about seeing magnificent daffodils at an Omagh Horticultural Society spring meeting. These daffodils were grown by Major General and Mrs. D. G. Moore, Mountfield Lodge, Omagh - only eight miles away. This seemed to corroborate Alan Smith's remarks. Evidence was building up and there were links in the chain as on subsequent visits to Mountfield it was found that the bulbs had mostly been obtained from Guy Wilson.

The matter could not rest, I just had to see some of these 'miracle' flowers. The catalogues arrived and in the autumn of 1962 one bulb of each of twelve varieties at 2/6 each were purchased from G. L. Wilson Ltd. When they flowered I understood; William Wilson, Alan Smith, and Rev. Rowan were right. Not only was there improved color, size, and substance, but I became aware of beauty of form, texture, balance, and proportion - aesthetic qualities not previously appreciated. I was now hooked! I must see more of

these better daffodils and learn more about them. I persuaded the local Horticultural Society to introduce an element of competition into the daffodil display evening in May, 1963, and to invite Mr. Tom Bloomer as judge and speaker/demonstrator.

That show and demonstration of 6th May, 1963, and the opportunity to meet and talk to Mr. Tom Bloomer provided the 'coup de grace' and confirmed me as an incurable member of the 'yellow fever' fraternity. To my great surprise and delight, flowers from my twelve bulbs had won eight of the twelve single bloom classes and my Cantatrice was Best Bloom in show. Other winning varieties were Kingscourt, Galway, Polindra, Rosario, Golden Ducat, Charity May, and Actaea. Despite these successes my few flowers were overshadowed by the magnificent selection of the latest and most beautiful daffodils, including some with really pink cups, which Mr. Bloomer brought for his demonstration on grooming and staging for exhibition. Many were seedlings of his own raising and he also demonstrated the technicalities of hybridization. Here, at last, was a chance to meet a man who had actually bred new varieties of plants.

I am sure I must have peppered poor Tom with a myriad of the most ridiculous questions that evening. He must have recognized some spark of interest and enthusiasm which he fanned and kindled with patient helpful advice, encouragement, and a gift of some of his demonstration daffodils. Tom was so modest and made it all seem so easy that suddenly I realized that daffodil breeding was something which I could possibly undertake myself, albeit in a very small way.

My first cross was made a few days later when a flower of Kilworth opened - the last and only remaining bud on my 'big twelve' plants. Pollen from a pink flower (Interim or a seedling) in Tom's gift lot was applied to the stigma of Kilworth with such great determination, clumsiness, and nervous anticipation that a successful mating seemed highly improbable!

The basic aim of that first cross was simply to find if I could manage the mechanical intricacies of applying pollen and persuading the flower to produce seed. Only three or four seeds resulted which were planted and germinated in a small clay pot. The baby bulblets had a tough job surviving the next couple of years as they suffered the hardships of neglect and ignorant care in their confined and often arid quarters. Tom Bloomer had told me that with such parents they were unlikely to amount to much which may account their existence had not been in vain, they had been living proof that even I could produce daffodil seedlings. Fifteen years and many thousands of seedlings later that may not seem important, but to me it was breaking the sound barrier. The seemingly impossible was now possible. I could become a plant hybridist - a daffodil raiser. An old fascination and a new interest could be combined.

Interest developed with this realization, and R.H.S. *Daffodil Yearbooks*, catalogues and any other available daffodil literature were begged, bought, or borrowed from a wide variety of sources. Pedigrees, cultivation methods and show reports were studied in detail. With awe, I read about and became familiar with the names and achievements of the great daffodil raisers of the past. Incidentally, the first R.H.S. *Yearbook* (1963) which I purchased contained the obituaries of both Mr. G. L. Wilson and Mr. J. L. Richardson. It is a source of disappointment that I never had an opportunity to meet them personally.

The following spring, 1964, was one of reconnaissance; first visits were made to Prospect House, to Tom Bloomer, W. J. Dunlop, and even to the London Daffodil Show. I had the audacity to enter flowers in the Novice Section that year and great was the amusement at home as I cut, stapled, and joined two shoe boxes and prepared a cotton woollined travelling bed for my two flowers - Ceylon and Trousseau which were the only ones open on 6th April. Though the Ceylon did gain a fourth prize the object of entering was primarily to get an Exhibitor's Pass to get into the show early to enjoy and experience the hurly-burly of show preparations and to have time to study the flowers.

By the end of the 1964 flowering season I had seen many of the best flowers available at that time. Mr. Lea's Canisp which was the Best Bloom in London; Mrs. Richardson's Rose Royale and Olympic Gold seen in Waterford, were flowers of such perfection and beauty that further improvement seemed both unlikely and unnecessary. Nevertheless I was determined to have a go. I could not afford to buy Rose Royale at 35.00 pounds per bulb (as it was at that time) so I would have to raise my own. Mrs. Richardson very generously gave me some flowers to bring home including blooms of Rose Royale, Rosedew, Debutante, Salmon Trout and Rose Caprice. Obviously the idea of breeding pinks had excited my imagination because the previous autumn I had bought single bulbs of all the cheaper pinks from Mrs. Richardson and Mr. Dunlop. Imagine my great excitement and gratitude as I drove home dreaming of crosses to be made with those gift flowers which were laden with pollen of a breeding potential which my pocket could not possibly provide. In that spring of 1964, my first 'serious' crosses were made and seventeen out of twenty-two crosses involved pink parents.

The visits of 1964 became annual pilgrimages during that long five-year wait until the first seedlings flowered. More crosses were made each year and the stock of bulbs for exhibition and breeding was gradually up-graded by purchases from the professional growers and gifts from amateurs Tom Bloomer and W. J. Bankhead.

The competition at the Northern Ireland and London shows became increasingly enjoyable as I got to know fellow competitors and learned to appreciate the standards required for any chance of success. After some modest success at Northern Ireland shows I managed to win the Novice Twelve Bloom class in London in 1968. When, two years later I had several first prizes in Amateur Single Bloom classes I felt I was making some progress. I was gaining some confidence for selection of seedlings if and when the time came - I determined from the start that I would be ruthless in selection as all the books advised. In this respect I'm afraid I have failed - I keep too many seedlings in the hope that they will improve in future years. A very few do improve, most do not.

Looking back on those earlier years it is interesting to note how my aims and ambitions changed and developed. From the first basic achievement of carrying out the cross pollination and germinating the seed came the desire to see the first seedlings flower. The need to develop some expertise for assessment of seedlings then became important followed by a desire to check that assessment on the show bench against the best named varieties. Almost unconsciously the sights were raised as targets were achieved. There were many thrills at each stage-the excitement and anticipation of watching the very first flower buds about to open; the disappointment with the throwbacks and the elation as a promising one unfolds. Then the first local show bench success for a seedling, this is the stamp of approval by an expert judge-a heady experience indeed!

My first such experience was at the 1971 Ballymena Show when a pink seedling from that Rose Royale pollen of 1964 won both the single and three bloom classes for pinks. The seedling was later named Premiere because of this first success, because it is the first pink to open each season, and because it was to be the first of my seedlings to be registered. Premiere is not a world beater but it has had several more successes, including a win in the pink class at the 1978 London Competition. It is valued for its earliness and has received favorable comment in London Show reports, attracting attention because of its neat perky form and bright green eye.

When Lilac Charm, my little pink cyclamineus hybrid with distinct lilac tones in its long and beautifully flanged trumpet, won its class at the 1973 London Daffodil Show another ambition was achieved-to win a class in London with a seedling of my own raising. Lilac Charm repeated this success in London in 1974 and 1975 to complete a 'hattrick' and show it was no fluke. Yet I feel I can claim no especial credit for Lilac Charm despite the general admiration and acclaim it has received. Its 'cyclamineus' ancestry is in some doubt and though the cross was made in the hope of getting strong pinks and possibly bluish tints I certainly did not expect such a delightful surprise. The characteristics of *N. cyclamineus* are so 'clearly evident' that I suspect the intervention of a highly imaginative bee somewhere in its pedigree. It is this chance of a break and the diversity and variation amongst seedlings which is so gripping and absorbing. I was lucky to find these two promising flowers so early which were a great encouragement to continue.

Additional pleasing show successes and milestones were achieved when D. 190 (Mount Angel 3W-YYR) was selected as Best Unregistered Seedling and Best Division 3 flower at the 1975 Omagh Show; when Delta Wings (6W-P) won the Best Bloom award at Omagh in 1977 and when my group of seedlings won the major twelve bloom class against open competition at Omagh in 1978.

The ultimate ambitions of any serious daffodil hybridist still dangle like the proverbial carrot before a donkey-they are to win Best Bloom at London with a seedling and to win the Engleheart Cup for twelve seedlings raised by the exhibitor. To achieve the first of these would be like winning a lottery-you cannot really plan to win but you must have your name in the hat. The Engleheart Cup is different and infinitely more difficult - dedication and perseverance linked with hard work and enthusiasm will be required if this one is to be achieved. So far as I know the cup has not been won by any breeder of less than twenty years experience. Also, it has always remained in the hands of the landed and wealthy where financial and labor resources restricted neither the choice of breeding stock nor the time available for the work involved.

With this knowledge and in full realization of the enormity of the task it is perhaps foolhardy and presumptuous to harbor even slight hope of ever winning the Trophy, but proceed I will, though I disapprove of the traditional color balance which seems to demand at least three Y-R flowers (inevitably rather similar) in the twelve. I think the widest possible range of types, consistent with a well balanced exhibit, should be shown. However, crosses towards meeting the unwritten obligation have been more recently included in my breeding program and some promising flowers are emerging. I was encouraged by the standard of my twelve seedlings at Omagh 1978 which were much better than my twelve which came third in the Engleheart class ten days earlier. I think the gap is narrowing but there is still much ground to make up. This ensures that the thrill and anticipation of examining each year's new seedlings will not diminish.

Daffodil shows are great fun, as the results of the breeder's skill or good fortune are brought together for comparison and appraisal. In addition to the judges' opinions, remarks of admiration or criticism by fellow enthusiasts are helpful in determining the fate of particular seedlings. Important as shows may be as sources of entertainment, as outlets for competitive urges, as public displays of the best in daffodils, and as a means of keeping up to date with developments, they are not an end in themselves. Without the shows and the boost to ego which winning and favorable comment give, there would be little incentive to hybridize, beyond the purely commercial. So far as I know a fortune has not yet been made by a daffodil breeder so the commercial incentive is not strong. Shows, therefore, through the amateur fun they provide, are the spur to encourage improvement in the *Narcissus* genus - or so I try to convince myself when beset by a conscience which questions some aspects of the morality, the motivation, the egotism, and the selfishness involved in competitive exhibition. This justification begs the further question - is the improvement of the *Narcissus* genus important, necessary, or even desirable? I am happy to remember that John Kendall raised King Alfred about 80-90 years ago. It was a sensation then and has since provided employment for thousands, pleasure for millions, and brightened the flower sellers' barrows in the streets of London for half a century. During all this time, by the hand of hybridists, it was being used as a stepping stone to the beauty and perfection we see today in a host of varieties of different forms and colors, e.g. Midas Touch, Newcastle, White Star, Golden Joy, Amber Castle, Loch Hope, Torridon, Don Carlos, Irish Rover, Ringleader, Broomhill, Achduart, Doctor Hugh, Purbeck, Beauvallon, and Gay Challenger.

All the above flowers, each of which would grace any exhibitor's collection and add beauty to any garden have King Alfred three, four, five, or six generations back in their pedigree. All my little show successes fade into insignificance against this record, but the example is one which provides the greatest justification for daffodil hybridizing. King Alfred has long since been eclipsed as an exhibition, garden, and commercial flower, but, so long as daffodils are grown the influence of John Kendall's King Alfred will remain. The case of King Alfred and other daffodils which have been superseded, even during my own short experience, tempt me to quote the lines of Herrick, though extending the thoughts to the life-span of varieties rather than the blooms:

*"Fair Daffodils, we weep to see
you haste away so soon, . . ."*

and

*"We have short time to stay as you,
We have as short a spring, . . ."*

Even the very best new daffodil introductions can only have a relatively short run of popularity. Progress seems to be slow yet few varieties survive as top exhibition flowers for twenty years, and only a minute fraction of these ever achieve wider acclaim as commercial bulbs or cut flowers.

In daffodil breeding as in most things, the achievements of the past and present are but the stepping-stones to the future. This and the further realization that this year's perfection is likely to be the mediocrity of the next decade are sobering thoughts which brings the significance of daffodil breeding into perspective. Those of us involved should enjoy our seedlings while we can-and if they are good enough perhaps they may be permitted to influence the future.

The perfect daffodil has not yet been raised; there is scope for improvement in every sub-division and color combination. I find it difficult to visualize a standard of perfection beyond that which my eyes have seen. I think it is easier to think in terms of combinations of the best qualities of the best flowers available. Sometimes this means simply intercrossing the two best flowers of the type or sometimes going back to one which has a particularly desirable characteristic. One of the characteristics which requires more attention is the general one of consistency of performance - so many varieties produce only a small proportion of show quality blooms. I often make notes of imaginary crosses in the winter evenings. Alas, the temporary loss of these notes, a poor memory, the rush of other springtime activities and the fact that the chosen parents may not be in flower at the same time all seem to combine to thwart such well-intentioned plans.

What are the flowers of my mind's-eye to be like? I will deal briefly with my aims for future improvement and development in the usual classification order, though there may be some overlapping of subdivisions.

DIVISION 1 — TRUMPET DAFFODILS

The yellow trumpets have progressed little since Kingscourt appeared in 1938 despite thousands of seedlings being flowered and numerous varieties being registered. This indicates that a new approach is necessary. Apart from King's Ransom (poor in other respects) and Midas Touch, no deep golden yellow trumpet has a sufficiently wide based 'ace of spades' perianth segment as found in Empress of Ireland—a white trumpet. It may take two generations or more but I think major improvements may come from crossing Empress of Ireland with deep golden trumpets such as Arctic Gold, King's Ransom, or Midas Touch. I have a nice 1 Y-Y seedling from Empress of Ireland × Joybell to be named Verdant which may prove useful in skipping a generation. I have hopes that such crosses may help increase virus resistance in yellow trumpets and provide useful breeding material for better bi-color trumpets. I am aware that to suggest crossing yellow with white amounts almost to sacrilege but progress has been so slight that I think the gamble is worthwhile. My yellow trumpet vision has the form and size of Empress of Ireland combined with the deep gold and shining smooth texture of Arctic Gold or Midas Touch.

How about a consistent bi-color trumpet of similar form to Empress of Ireland, White Star, or a good Newcastle, with a perianth of poeticus white and a trumpet of maximus gold? Such must be the ideal, but I confess to a feeling of inadequacy when considering crosses towards this ideal. I have flowered several hundred seedlings from numerous crosses but muddy or stained perianths mar those with good trumpet color; pale trumpets always seem to attach themselves to those with good white perianths.

White Empress, which is the purest white trumpet I know, sometimes yields bi-colors even when crossed with another white. It may have possibilities if crossed with the American-raised Descanso and Wahkeena which have good white perianths and smooth texture. One or two of Mr. Bloomer's new seedlings may prove to be better than Newcastle, but the perianths are not pure white—they will be crossed with the abovenamed Americans. Though I will continue to dabble in this sub-division, I feel results are more likely to come from someone like Malcolm Bradbury, a young man from Essex, who is making a specialty of this sub-division—may he produce that pure white/unfading deep gold bi-color of my dreams.

With Tom Bloomer's White Star in the field, it is difficult to imagine further improvement—it has purity of color, smoothness of texture, elegance of form,

consistency, great dignity and size combined with vigor of growth, length of stem, and a show bench record unequalled for a flower of its age. Nevertheless, there is room for variation in similar quality and I look forward to a white trumpet amalgam comprising the glistening whiteness of White Empress, the breadth of petal of Empress of Ireland, and the poise of Panache combined with those White Star qualities already listed. I would like to have three or four variations on this theme. Trumpets of the slender form and green eye of Silent Valley or with the generous flange of White Empress or the finely toothed edge of White Majesty should satisfy most tastes. I have made crosses towards these ends and only patience and time will indicate the success or otherwise of my efforts. In such a high-class field anything new will have to be really exceptional as regards flower quality, though added stem length and resistance to basal rot would be worthy improvements.

The reversed bi-color trumpets are a pretty uncouth lot in a very early stage of development. They are all still a long way off the ideal of a deep golden perianth and a pure white trumpet and the form of even the best is poor. Grant Mitsch's American-raised Honeybird is about the best I have seen, but it is an 'on-off' sort of flower of imprecise contrast. I think progress is likely to come from the progeny of the Division 2 Daydream. I have some seedlings from it which show nice depth of color and contrast whereas Honeybird has yielded little to excite interest. Carncairn's Gin and Lime is receiving acclaim and should be a worthy parent as should many more recent Mitsch varieties and seedlings with which I am unacquainted. Some of Mrs. Richardson's near trumpet Camelot \times Daydream seedlings such as Avalon, Amber Castle, and Cairngorm crossed back to Daydream might produce good flowers from Divisions 1 and 2.

Pink trumpets are few and mostly raised in America, New Zealand, and Australia. Rima from Mitsch is probably best known, the color is good, cup length is not in doubt, but the general form and consistency leave much to be desired. Richardson's Rosedew [Div. 2] was quite nice but had a muddy perianth, impure coppery shades, and was susceptible to virus. This is a field wide open for someone wishing to concentrate on a particular type. I saw some promising new ones at Mitsch's in Oregon but perianths were still not pure white. Rima is an obvious parent and it might be interesting to try it with Lilac Charm which has a full length trumpet. From my winter-planned crosses which never got done, I see the suggestions of Empress of Ireland and Preamble \times Rima and Rose Royale which still seem like fair ideas to produce first generation breeding material. I crossed Rima \times Rosedew in 1970 and it did not yield one flower worthy of selection for further trial—rightly or wrongly I blamed Rosedew which had a yellow trumpet grandfather, which may further explain its tendency to stripe. A few Antipodean pink trumpets have been obtained and I hope to make greater efforts in this class in the future—the ideal may be a long way off but improvement should be possible with well-planned crosses.

Red trumpets on yellow perianths are now with us though generally in inferior quality. John Lea's Glenfarclas, of doubtful measurement but trumpet appearance, is the nearest thing to a show quality flower in this color. I have now crossed it with some of the Backhouse varieties—Deseado, Dalinda, etc.—and await the results. The Australian raised Trumpet Call has been obtained for breeding purposes but I think best results might be obtained by crossing Midas Touch or Golden Jewel (which are reputed to have Ceylon in their pedigree through Camelot) with Glenfarclas, Loch Owskeich, and little Jetfire, the American red-nosed cyclamineus. I have repeatedly crossed Loch

Owskeich with deep gold trumpet varieties and applied pollen of Jetfire and Satellite to similar varieties but no seed resulted. The rough cold weather of the early season may account for the infertility and it may be necessary to store early pollen for application to later flowering varieties. A big breakthrough is due in the yellow/red trumpets and I expect it to come from John Lea in England or Bill Pannill in the USA.

There is another trumpet possibility which would seem to be far in the future, i.e. white perianth and red trumpet. My neglected winter proposals towards this end propose both Preamble and Newcastle being crossed with Norval, Irish Rover, Loch Owskeich, and Irish Light as a source of possible further breeding material. On further reflection the 1 Y-R's mentioned in the paragraph above should also be used. Mr. Bruce James showed a Preamble seedling with a distinct orange flush in London several years ago which might have breeding potential, though progeny of Preamble is seldom seen in public. Certainly I think a flower of Preamble form with pure white perianth and unfading orange/red trumpet could be an attractive novelty well worth pursuing. Rather than take the line of breeding suggested above I might be tempted to take the pink approach. Deeper, redder pinks are available with longer cups than the orange/reds and the perianths may also be whiter.

Variations on the theme of orange/red trumpets on either yellow or white perianths would be the rimmed kinds as we have in Divisions 2 and 3. If we can add green eyes then the color range is just about complete apart from an all orange or all red flower.

There is so much more scope for outstanding color breaks and development in the trumpet sub-divisions compared with Divisions 2 and 3. I hope to make more crosses on the lines suggested in the hope of making some progress. Two, three, or more generations may be required to achieve acceptable standards in these trumpets of the future. I would like to be around to witness the arrival of some such flowers whether raised by my own hand or by another.

DIVISION 2 — LARGE-CUPPED DAFFODILS

Galway and Ormeau had a long reign as leaders in the all yellow class. Suddenly with the emergence of Camelot and Golden Aura, and now their progeny, we have a bevy of real beauties but as yet no clear leader. Golden Joy, Golden Jewel, Golden Aura, and Amber Castle have been crossed with such flowers as Joybell, Daydream, Arkle, and Barnsdale Wood in the hope of producing something of a more distinctive style in at least equal quality. I fancy a deep golden full sized flower after the style of Joybell with its beautifully shaped petals and trumpet roll. Daydream might give a really top quality self lemon flower. Pollen of Arkle and Barnsdale Wood might yield a trumpet of Golden Joy quality and a step towards a red trumpet respectively. Such are my aims; this sub-division should be rewarding in the production of perfect seedlings for exhibition.

John Lea's success in perfecting the 2 Y-R flowers is well known and daunting to any would-be follower. However, Y-R seedlings are essential for any Engleheart aspirants so they must be included in my breeding program. I have planned my crosses to give a variety of well proportioned cup shapes and perianth shapes. Hopefully these variations will be combined with intensity of color and sunproof qualities.

For narrow tubular or cylindrical cups, I have used Irish Light, Rathowen Flame, Torridon, and Loch Hope. For a typical cup chape, Shining Light and

Gettysburg are included in the program, and Barnsdale Wood and Bunclody will hopefully give well proportioned bowl shaped crowns. The Division 3 flowers Ulster Bank, Sabine Hay, Altruist, Achduart, and Montego should oblige with button or saucer shaped crowns. These crosses should also give Division 3 flowers, perhaps some with red-flushed petals. Having neglected the yellow/reds in earlier years, I have much leeway to make up.

There is room for something new in the rimmed Y/R class and I have been using Mr. Bloomer's April Magnet and Mr. deNavarro's Gettysburg in my crosses. Both have better perianth colors than Ringmaster or Balalaika, and Gettysburg has the deepest red rim I have ever seen in this class.

Looking through my records I find very few crosses have been made to yield 2 W-Y flowers—only Aldergrove, Tudor Minstrel, Dunmurry, Irish Minstrel, and May Queen appear, and I have no really worthwhile seedlings from any of them. More promising seedlings have appeared by accident from Joybell × Empress of Ireland and Easter Moon × Knowehead. I have great faith in the progeny of Joybell as future parents for a variety of types. Seedling D.490 from Easter Moon × Knowehead shows promise—it has a deep green eye, distinct style, and should be a useful breeder. I hope to intercross seedlings from above crosses with the American raised Chapeau (Evans) which I rate about the best I've seen of this type.

The children of Kilworth × Arbar were lauded and eulogized when they hit the London shows. They are still about the best around but their faults are as many as their merits. It is easy to list the improvements one would wish to make—greater consistency, whiter petals, earlier flowering, cleaner, better bulb quality, resistance to sun scorch. It is not so easy to suggest a reliable line to take to achieve these improvements, but I think this is one case where a continuation of line or inbreeding will only exacerbate and perpetuate the problems. I have not done much with this type, but one or two promising flowers have come from pollen of Don Carlos and Norval on to some of the older Division 3 flowers such as Mahmoud, Merlin, and Omagh. I await with interest the results of crosses involving Royal Coachman, Ohio, Ulster Star, Irish Rover, and Doctor Hugh. In future it might pay to almost start again by crossing Easter Moon progeny with some of the best white/reds—perhaps Don Carlos or Brahms. Progress will be slow but I aim to try. Easter Moon is such a prolific parent of quality flowers that I even plan to cross it with some of the best yellow/reds and several other unlikely mates—such sacrilege!

Nearly all the 2 W-R flowers have bowl shaped crowns and the variations listed for the yellow/reds are equally desirable here but much more difficult to attain. Apart from Buncrana and Glorietta, which are pale in color, there is little narrow cupped material to use for breeding—back to Easter Moon again!

From the beginning I have had a particular liking for the pink crowned flowers and a high proportion of my crosses involve pinks. Rose Royale, Dailmanach, and Fair Prospect perhaps set the overall standard by which future flowers should be judged. Other flowers have particularly desirable qualities such as purer white perianths, purer, redder or violet-tinted pink, unfading colors, and longer stems. Again I think a change of direction is needed to get away from constantly inbreeding like with like. Some of the American flowers are really white and red/pink and though they may lack the smoothness and breadth of petal of our best, I hope they will transmit their good qualities without detriment to form. The influence of Easter Moon is already evident through John Lea's Dailmanach and by crossing it with Violetta I have some interesting pale lilac-toned flowers. Some Australian and New Zealand pinks have also been added to the 'stud' for further mixing of the genes.

My newly named Fragrant Rose is an interesting break. Not only has it very deep color in a reddish copper narrow pink cup which seems resistant to sun but it has a most delightful fragrance which reminds me of the rose Super Star (Tropicana in the USA). I cannot be sure of its parentage because of gross accidental mixing of seed in 1967, but the only possibility would seem to be Roseworthy seedling \times Merlin. Such a cross would seem daft and I have no idea why the cross was made but if Fragrant Rose is the result then similar crosses to get fragrance and small cupped pinks are worth trying. To date Jewel Song has figured in all my pink small cupped efforts and on checking I find that it was crossed with Fragrant Rose in 1973 before the latter was christened. Only four plants resulted and if they flowered this year they passed unnoticed. Fragrant Rose was crossed with two Merlin seedlings last year, primarily towards intensifying fragrance but a good pink small cup would be an acceptable bonus or substitute.

There is great scope for improving the rimmed pinks—Rainbow, Drumboe, Infatuation, and Coral Ribbon are all attractive in their different ways but they are not the ultimate. Mr. deNavarro's Tomphubil and his seedling No. 108 figure most prominently in my hopes for improvements; the latter has an amazing raspberry red rim. My own Pismo Beach is a new style rimmed variety which should prove useful for crossing with shorter cupped varieties such as the American-raised Audubon.

Still on pinks, I confess to having made some crosses with Polonaise which may yield split corona pinks with better perianths and deeper color. It certainly does give seedlings which can be seen a field length away and which can be relied upon to attract attention.

The yellow/pinks are now receiving more attention—the suggestion of such a color combination invokes very definite and opposing reactions. Mitsch's Milestone was the first to be commercially available; simultaneously or shortly afterwards seedlings were appearing in New Zealand, Ballymena, Omagh, and on Mitsch's doorstep with the Murray Evans versions. It is difficult to visualize how far one wants to develop this color combination. Does a Maximus gold perianth with a cup color like Violetta stretch the imagination beyond the bounds of good taste? On the other hand a pink cup like Rose Royale on a lemon perianth like Daydream would seem to be most appealing. I have made quite a few crosses involving Milestone, my own Brindisi, Undertone, and Pink Mink as well as some of the Tom Bloomer and Murray Evans seedlings. Probably Rima and Rosedew should be used because of the yellow in their background.

I think, perhaps, some of the smoothest and best show flowers I have raised are in the white Division 2 class. All are in very early stages of development and have been raised from Easter Moon crossed with Empress of Ireland, Knowehead, Stainless, White Star, and Silent Valley. Good as some of these seedlings seem to be, only time will tell if they can match or better such top quality varieties as Canisp, Broomhill, Ben Hee, Misty Glen, and Glenside. From some of the above crosses, especially Easter Moon \times Silent Valley, I had hoped to add deeper, more pronounced green eyes. Unfortunately when the desired green eye appears, it seems to be accompanied by a greenish cast which spoils the purity of whiteness in the perianth. Though this spoils white varieties, it makes me wonder if it might be used to develop a green flower—if crossed with the greenest of the sulphur shades.

DIVISION 3 — SMALL CUPPED DAFFODILS

Advocat and D. 345 (to be registered as Mint Julep) are my only worthwhile all yellow Division 3 flowers. Both were raised accidentally from Woodland Prince pollen when the aim was really for deeper colored 3 W-Y flowers. More recently some of Dr. Throckmorton's toned daffodils and Mr. W. A. Noton's Citronita have been obtained as additional breeding stock. I hope Mr. John Blanchard's Ferndale can also be added in the near future as it has probably the deepest color of any in this class.

John Lea's Achduart, D.B. Milne's Altruist and Sabine Hay have recently appeared to provide unlimited potential for improvement and development in a class for so long dominated by the unreliable Chungking and Doubtful. Crossing this trio with Montego and my own Ulster Bank should give some promising results, including some so-called 'all red' seedlings to which sunproof qualities must be added in future. Intercrossing the Y/R's of Division 2 and 3 should give seedlings in both divisions—an example of several cases where dual or triple purpose crosses can be made.

What is the best white/yellow small cup? Show records will indicate Aircastle as the leader, but it is often more yellow than its winning neighbor in the 3 Y-Y class. Woodland Prince has about the best color but a tendency to be asymmetric. Syracuse is perfect in form but lacking in color and poise. By crossing these two and Crepello, some nice seedlings have been obtained but smoothness and good form seem to be accompanied by weak color and vice versa. The ideal of pure white and deep gold is as elusive here as in Divisions 1 and 2.

Since the early 1960's, Rockall has been almost unchallenged as leader of its class. Coming from that prolific Kilworth × Arbar cross, it was such a complete contrast in style from its predecessors Matapan and Mahmoud that it was once aptly described as a galloping interloper in the 3 W-R division. My preference is for a rounder, broader petalled flower, and it was with this in mind that I went back to Mahmoud and Enniskillen and crossed them with Don Carlos which resulted in three flowers of some promise, namely Doctor Hugh, Red Rooster, and Dunskey. Merlin × Avenger has also given a seedling of interest—D. 109—which is an extremely durable and consistent flower of Rockall coloring but much rounder form. Further crosses have been made involving Rockall, and several quite promising seedlings have been selected for further trial. In the meantime I regard Doctor Hugh and Red Rooster as fairly reasonable improvements in purity of whiteness, breadth of petal, and attractiveness.

Merlin still sets the standard by which all rimmed varieties must be judged. Other good ones provide variations in form, but few have such pure white perianths or such clearly defined rim color. Merlin is therefore the obvious parent but the selection of pollen may as well be left to the bees. To cross deliberately for increased size, which is a doubtfully desirable aim, is likely to result in a loss of whiteness. From one open pollinated pod of Merlin yielding three seeds I got Mount Angel, a large pure white 3 W-YYR which already has a good show record; Ringway 3 W-YYR of very distinct triangular form with an extremely sharply defined deep red rim, and Narya 3 Y-YYR, a small jewel-smooth flower. I have a high regard for Merlin as a breeder and crosses should not be confined to its own class—remember it is the most probable parent of Fragrant Rose 2 W-GPP. So it might be worth crossing with pinks. Good quality rims are relatively easy to raise; attention needs to be paid to bulb quality and sun resistance in selection of those for naming. Some of Sir

Frank Harrison's have lovely green eyes and delicate orange rims combined with good bulbs and growth habits—unfortunately most are very late flowering, but for their other qualities they should be used for breeding. My aims in this class are not clearly defined in my own mind, but they are so attractive that I keep making crosses in the hope of adding further variety and refinement to an already varied and refined lot. There is, however, room for much improvement in Division 2 versions of rimmed varieties, and this improvement is likely to come from the 3's.

Verona is a lovely flower and has had about as long a run at the top as Rockall in its class, but it is not very white. My aim here is to breed earlier flowers with really deep green eyes and of poeticus whiteness. I have used Verona, Monksilver, Cool Crystal, and Dallas as well as some of my own seedlings but it is difficult to imagine earlier flowers from such parentage—and alternatives are not obvious. Division 2 Stainless and Easter Moon are possibles, but two generations may be required—perhaps Trouville, an almost white 2 W-Y from Verona × Stainless will provide the key to earlier flowers in this class. Whatever the flowering season an amalgam of the best qualities of the quartet of 3 W-W's mentioned would be a welcomed find in my seedling beds.

DIVISION 4 — DOUBLE DAFFODILS

So much had been done with doubles at Waterford that there seemed little point in pursuing further except in so far as new colors were concerned. Accordingly my efforts were devoted to trying to raise pink doubles. I purchased a Richardson seedling R. 3509 (Falaise × Debutante) in which I thought I saw a hint of pink. The flower proved fertile and was crossed with the highly colored Polonaise which I thought might aid doubling because of its deeply fluted and wide mouthed large cup. From this cross I was very lucky to get Pink Pageant and Pink Paradise, both of which are fertile. There is a further little double seedling from this cross which has distinct lilac tones—perhaps even more definite than Lilac Charm. I have made many 'pink double' crosses using these and some of Murray Evans varieties and seedlings which are more red/pink and white but not so well formed. I await the results of these crosses with keen anticipation. Depth and clarity of color, purity of whiteness, and that lilac tone are pursuits for the future.

Another color break worth pursuing in doubles is all orange or all red. I think the Rev. Broadhurst once showed a flushed orange seedling in London and my own Smokey Bear from Papua × Vagabond has a distinct orange flush in the outer major petals and petaloids. It is fertile and has been crossed with Sabine Hay and Altruist in the hope of intensifying the color.

Though Acropolis's flower quality is hard to fault the bulb is poor—Monterrico × Doctor Hugh is my hope for improvement. Gay Song sometimes produces seed and it should open the way to earlier, more vigorous and purer white doubles. This is work for the future.

In the Y/R doubles, David Lloyd's Beauvallon is so good that it seems to have skipped a generation. Alas, it is susceptible to various viruses. Hopefully the stock can be revived to health; if not, then a new 'mold' will have to be formed by crossing Tahiti, Hawaii, and Tonga where possible with deep colored 2 Y-R flowers such as Barnsdale Wood.

DIVISIONS 5-9

In these divisions my interests have been confined to 6 and 9, the *cyclamineus* and the *poeticus*.

In Division 6 my interest was stimulated by the accidental arrival of Lilac Charm and Lavender Lass. These and Mrs. Reade's Foundling have been intercrossed and used with several other likely and unlikely varieties in attempting to increase the range and variety of pink cyclamineus hybrids. Some of the resultant seedlings are interesting, most are pink cupped, some with rims and there are two or three pure whites from Stainless × Foundling. Richhill × Foundling yielded some indeterminate colored flowers for future breeding of Y/R, W/R, W/P, or Y/P cyclamineus types—one has an orange rim.

I even wonder about raising a double cyclamineus following the appearance of a little yellow seedling with reflexed perianth and waisted 3/4 length cup filled with smaller petaloids similar to old Van Sion. It was strangely attractive and was marked for further trial. It has given me the idea of crossing that lilac toned double with Lilac Charm and possibly other cyclamineus × double crosses—which may result in classification difficulties. Developments in Division 6 should be exciting in the next ten to twenty years.

Though I have made a few crosses in Division 9, the old classification requirement whereby both parents had to be of the same division seriously restricted progress. Even yet "distinguishing characteristics predominant" precludes any really dramatic development. The purists may shun the idea but I feel there may be room for some progress by crossing some of the fragrant green eyed rimmed varieties from Division 3 with accepted poets. Earlier poets are also required so perhaps Actaea should be brought back for breeding purposes—it would also add vigor and size. Sir Frank Harrison's Fairmile, Fairgreen, and Lancaster; Murray Evans's Minx and Minikin; as well as Merlin and Silent Cheer could all be useful parents which might produce lovely seedlings which would give the classification purists some difficulty.

CONCLUSION

These remarks outline my basic thoughts and future aims in daffodil breeding. I fully realize that only a very small fraction of these aims can possibly be attempted, let alone achieved. The range is far too wide for any one person, never mind a part time hobbyist like myself. Nevertheless crosses have been made with many of these developments in mind and with a bit of luck something good enough to maintain interest should emerge. Greater success might be achieved by specializing in developing certain types but I'm afraid I do not have the patience or dedication to pursue a certain line through several generations.

Regardless of the success or otherwise of my hybridizing efforts, I think it is important to avoid taking it all too seriously. Daffodil growing, exhibition, and breeding should give pleasure and enjoyment to those involved and the public who happen to see the displays and new developments. It would undoubtedly be tremendously satisfying to raise a flower which might have the impact of old King Alfred, but like many raisers I expect I will have to be content with more modest and ephemeral successes.

Though I may never see many of the daffodils of my fancy in my own seedling beds, the near misses will perhaps provide a few stepping stones and help pave the way to their eventual appearance. In any case the fun is in

trying, and the fellowship of the daffodil fraternity throughout the world makes all the work worthwhile.

I end with an anonymous quotation which applies equally to life and to daffodil breeding:

"All the flowers of tomorrow are in the seeds of today."

So let it be! We must wait and see.

(The preceding article was a letter to David Willis whose seven years of research resulted in his dissertation "The History of Daffodil Breeding in Ireland" and the Doctor of Philosophy degree from the New University of Ulster.)

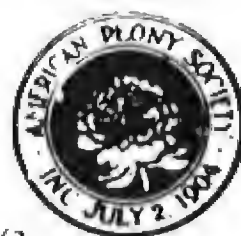
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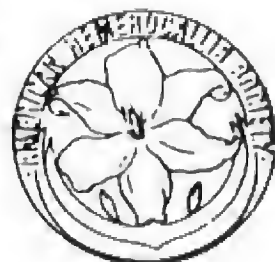
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HERE AND THERE

News of the daffodil and the people who grow them continues to reach us from all around the world in the form of newsletters and yearbooks published by various local and national societies. Regional newsletters include news of shows, judges refreshers, bulb sales, and meetings. If your region has activities planned, do try to attend. The fellowship of those who share the love of the daffodil is always enjoyable! (And the meetings aren't bad either!)

Vol. 12, No. 22 of the *Avant Gardener* summarized Jane Moore's article on the 1980 Symposium which was in the *December Journal*.

Looking for a particular plant? The "Source Guide 1981" is available from the *Avant Gardener*, P. O. Box 489, New York, New York 10028, for \$2.00 postpaid.

From Illinois comes word of the death of Mrs. L. F. Murphy, the founder and a charter member of the Southern Illinois Daffodil Society.

Mrs. Glenn (Betty) Millar, genial chairman of the Memphis convention, was installed as Director of the Deep South Region of National Council of State Garden Clubs in March.

The *South Bend Tribune* of April 12, 1981, had a full page spread, complete with colored photos, about John Reed and his daffodils; while the *New York Times* included an article on Helen Link's daffodils.

One of the added pleasures about attending conventions is the side trips you can enjoy in other parts of the country. On Sunday following the convention, Gene Bauer picked up several of us at the Newporter Inn and we journeyed to her home in the San Bernardino Mountains. Though her season was just beginning, and it was a cool, foggy day, there were enough daffodils in bloom for us to appreciate what magnificence she has added to the grandeur of the mountains.



Rustom Pasha growing on Gene Bauer's mountainside.

IN VITRO PROPAGATION OF NARCISSUS

TAKASHI HOSOKI AND TADASHI ASAHIRA
Kyoto University, Kyoto, Japan

Abstract. *Tazetta narcissus* 'Geranium' and large-cupped 'Fortune' were propagated from tissue cultures. Cultures of young flower stalks of 'Geranium' produced many adventitious buds on a culture medium supplemented with 5 mg/liter 6-benzylamino purine (BA) plus 1 mg/liter naphthaleneacetic acid. (NAA). Ovaries, leaves, and disks also produced adventitious buds although the number of buds was smaller. When the elongating shoots were transferred to a culture medium supplemented with 0.1 mg/liter NAA alone, they formed bulbs with roots. These plantlets were successfully established in vermiculite in pots 4 months after explanting.

This paper describes an efficient technique for propagating narcissus from flower stalk tissue *in vitro*. Differences in the response of various organs to growth regulator stimulation of shoot formation are discussed.

Bulbs with 7 mm flower stalks were sterilized with a solution of sodium hypochlorite containing 1% active chlorine, rinsed twice with sterile water and dissected into flower stalks, ovaries, disks, and leaves. Flower stalks and ovaries were cut into 1 mm thick sections and disks, about 27 mm³ cubes (Fig. 1). The leaves were used without sectioning. The explants were placed base-down onto 20 ml of the solid medium in test-tubes (20 × 200 mm).

The basal medium consisted of Murashige and Skoog (5) major elements, Ringe and Nitsch (6) minor elements and organic addenda, 2% sucrose (except sucrose study) and 0.7% agar. PH was adjusted to 5.6 with NaOH. NAA and BA were used as growth regulators.

Cultures were maintained at 27° ± 2° C under 4 klx for 16 hr from Cool White fluorescent lamps. Ten tube replicates were made for all experiments.

For 'Geranium' culture, flower stalk produced a few adventitious buds on the basal medium (Table 1) (Fig. 2). The addition of BA significantly increased the number of adventitious buds. NAA promoted callus formation, but suppressed bud formation. Combination treatments of NAA and BA suppressed callus formation and promoted bud formation with maximum number 21 at 1 mg/liter NAA + 5 mg/liter BA. Within 20 days after explanting, aggregates of epidermal and subepidermal cells projected out of the peripheral tissue (Fig. 3). By the 30th day, an apical meristem had appeared on the projected portion.

In leaf culture adventitious buds were formed only on the base of the leaf. In this case, BA supplement was indispensable for bud formation. Seabrook et al. (7) also reported that leaf base of immature narcissus leaves produced adventitious buds in BA and NAA supplemented MS medium. High potential for adventitious bud formation in young flower stalk and leaf base may be result of distribution of intercalary meristems in these tissues (2,4).

In disk culture, most of the explants turned brown without forming callus or buds. However, a few buds and callus formed at high concentration of NAA (5 mg/liter) with BA. Since endogenous hormone levels are low in non-meristematic disk tissue, high level of exogenous auxin would be required for bud formation.

For 'Fortune', adventitious bud formation was similar to that of 'Geranium' (Table 2). However, number of buds obtained was generally small and callus formation at cut surface was abundant.

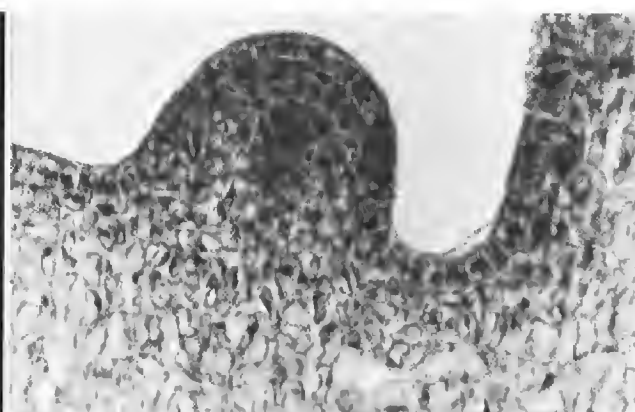
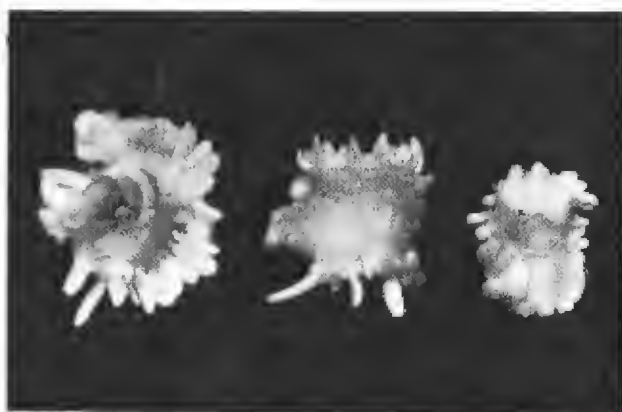
Bulbing of the newly formed shoots is advantageous in obtaining survival and establishment of plantlets when transferring them from test tubes to pots.



Fig. 1. Floral organ of narcissus used for culture.



Fig. 4. Plantlets of Geranium obtained from flower stalk culture (4 months after culture).



Left: Fig. 2. Adventitious bud formation from young flower stalks of Geranium (1 month after culture). Right: Fig. 3. Cross section of flower stalk of Geranium showing cell aggregates which project out of the peripheral tissue (20 days after culture).

Heath and Hollies (3) reported that high concentration of sugar promoted bulb formation of onions. NAA also promoted bulbing of adventitious buds in *in vitro* stem culture of *Dioscorea batatas* (1). When adventitious buds of 'Geranium' and 'Fortune' reached 5-10 mm in height, they were separated into clumps with a few buds and cultured for 2 months on the following media: 2, 4 and 8% of sucrose without growth regulators, 2% sucrose with 1 mg/liter NAA or 1 mg/liter BA. Any culture medium except the 1 mg/liter BA supplement promoted bulb formation (Table 3). Roots were induced only with 1 mg/liter NAA. Since NAA supplement promoted root as well as bulb formation, subculture of the buds in 0.1 mg/liter NAA medium for 2 months is recommended for establishing plantlets in pots (Fig. 4).

Assuming an average of 20 bulbs per flower stalk section, about 140 bulbs could be obtained from one mother bulb of 'Geranium'. Poor bud production of 'Fortune' was probably due to abundant callus formation at cut surface which suppressed bud induction.

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Table 1. Effect of NAA and BA on adventitious bud formation from flower stalk, ovary, disk, and leaf of 'Geranium' narcissus (2 months after culture).

Concn (mg/liter)		Avg no. buds/explant (± SD)			
NAA	BA	Flower stalk	Ovary	Disk	Leaf
0	0	3.0 ± 1.2	0	0	0
	1	12.0 ± 3.1	0	0	1.0 ± 0.1
	5	11.0 ± 2.7	0	0	0.5 ± 0.3
0.2	0	0	0	0	0
	1	4.5 ± 1.8	3.9 ± 1.1	0	1.0 ± 0.2
	5	14.0 ± 4.1	1.9 ± 0.5	0	2.3 ± 0.7
1.0	0	0	0	0	0
	1	10.0 ± 2.2	1.7 ± 1.6	0	1.5 ± 0.5
	5	21.0 ± 4.4	3.1 ± 1.2	0	0.5 ± 0.2
5.0	0	0	0	0	0
	1	3.0 ± 1.3	0.7 ± 0.2	0.7 ± 0.3	1.0 ± 0.3
	5	4.0 ± 0.7	1.7 ± 0.4	0.3 ± 0.2	3.0 ± 1.1

Table 2. Effect of NAA and BA on adventitious bud formation from flower stalk, ovary, and disk of 'Fortune' narcissus (3 months after culture).

Concn (mg/liter)		Avg no. of buds/explant (± SD)		
NAA	BA	Flower stalk	Ovary	Disk
0	0	0	0	0
	1	3.0 ± 1.3	0	0
	5	3.5 ± 2.0	0	0
1	0	0	0	0
	1	4.4 ± 1.4	0.2 ± 0.1	0
	5	5.4 ± 1.8	1.0 ± 0.2	0
5	0	0	0	0
	1	1.2 ± 0.2	1.2 ± 0.3	0
	5	2.4 ± 0.3	1.8 ± 0.5	3.0 ± 1.1

Table 3. Effects of sucrose concentrations and growth regulators on bulb and root formation of 'Geranium' narcissus (2 months after culture).

Sucrose (%)	Growth regulators (mg/liter)	Bulb formation	Avg no. of roots (± SD)
2	—	+	0
4	—	+	0
8	—	+	0
2	NAA (1)	+	1.5 ± 0.4
2	BA (1)	—	0

(The preceding article is reprinted with permission from *HortScience*, 15(5): 602-603. 1980.)

MARIE BOZIEVICH, *Bethesda, Maryland*

Daffodil growers often ask for recommendations of cultivars which will "win in shows." Sometimes there is a request to stay in a particular price range. With this in mind, perhaps it is time to up-date a list written for the *Journal* of December, 1975.

First I must caution that these are the ones that do well for me in my climate and garden conditions. There are many other cultivars not mentioned which would be included in someone else's list. The best recommendation is to attend shows and write down the names of the winners or to study the show reports in the *Journal*.

All of the daffodils on the following list have been in my garden for at least three years, some of them under number before they were named, and all have been very consistent. The ones which are my favorites have been starred. I have been growing and showing some of these for fifteen or twenty years. Aircastle has won the most blue ribbons and there are others—Rameses, Daydream, Prologue, Tranquil Morn, and Doubtful which I could not do without. (1980 prices.)

Under \$5.	\$5. - \$10.	\$11. - \$20.	Over \$20.
<u>1 Y-Y</u>			
Aurum	Elmley Castle	*Golden Vale	Gold Convention
*Arctic Gold	Golden Prince	Golden Sovereign	Meldrum
Carrickbeg	Scoreline	Shanes Castle	Prosperity
King's Stag	*Strathkanaird		
<u>1 Y-W or WWY</u>			
*Honeybird	*Chiloquin	Big John	*Epitome
Lunar Sea	Dawnlight	*Gin and Lime	Sweet Prince
	Rich Reward		Teal
<u>1 W-Y</u>			
Cool Contrast	Form Master	Apostle	Elegant Lady
*Descanso	Ivy League	*Monticello	
Downpatrick	Jet Set		
*Prologue			
<u>1 W-P</u>			
Rima	*Brookdale	Chaste	Eiko
	Rosedale		
<u>1 W-W</u>			
*Celilo	Birthright	*April Love	*Silent Valley
Empress of Ireland	Queenscourt	Ballylough	White Satin
Ulster Queen	White Empress	*Mountain Dew	White Star
Vigil	White Majesty	Rhine Wine	
<u>2 Y-Y</u>			
Camelot	*Demand	Goldmine	Bryanston
Emily	Euphony		Golden Jewel
Oneonta	*Golden Aura		Golden Joy
Strines	*Top Notch		Golden Ranger

2 Y-P

Bookmark
*Milestone
Pastel Gem

Amber Castle
Highlite
Widgeon

Windsong

2 Y-R or O or YOR

Bunclody
Crater
*Loch Stac
Loch Owskeich
Pinza
Shining Light

Armley Wood
Drumrunie
*Falstaff
Loch Naver
*Irish Light

Barnsdale Wood
Chianti
Fuego
*Loch Hope
Resplendent

Glen Clova
Loch Lundie
Torridon

2 O-R

Rio Rouge
Tawny Lad

Fire Flash

*Fiery Flame
Exalted

Creag Dubh

2 Y-YYO or R

Front Royal
Ringmaster

Shieldaig

2 Y-W or WWY

Charter
Bethany
*Daydream
Rushlight

Cloud Nine
Ptarmigan
Suede

Cairngorm
Dotteral
Drumnabreeze
Grand Prospect

*Impressario
*Pryda

2 W-Y

Chapeau
Festivity
Glamorous
Old Satin
Jolly Roger

Ceres
Flash Affair
Soubrette
Tudor Love
Yellowtail

*Irish Mist
Lemon Sherbet
Limpkin
Modulux
*Pure Joy

2 W-O

Arapaho
Orion
Crown Royalist

*Irish Rover
Orange Beacon
Orange Sherbet

Hilford
Lara

*Loch Brora

2 W-R

Flaminaire
Don Carlos
Eribol
*Rameses

Borrobol
Sheik

Rubh Mor

Loch Turnaig
Ulster Star

2 W-YYO or R

Lysander
Royal Coachman
Sirius

Northern Sceptre
City Lights
Dreamboat
*Ringleader

Verve
Whoa

2 W-P

Canby
Jewel Song
Gainsborough
Lisanore
Passionale
Tullycore

Conval
Fount
*Kildavin
My Word
Peacock
Rose Royale

Cool Flame
Chiquita
*Declare
Fair Prospect
Recital
Sedate

*Balvenie
*Dailmanach
*Gracious Lady
Pink Easter
Pitta
*Vahu

2 W-YYP or WWP

Coral Light	*Highland Wedding	Rainbow	Volare
Coral Ribbon	Delectable	Heartthrob	Raspberry Ring
*Dulcie Joan			

2 W-W

Ben Hee	Arpege	*Creme de Menthe	Ashmore
Churchfield	*Broomhill	Glenside	Cold Overton
Danes Balk	*Canisp	*Homestead	Croila
Easter Moon	*Crenelet	Inverpolly	*Shadow
Pitchroy	Tullygirvan	*Misty Glen	
*Yosemite	Tutankhamun	Wakefield	

3 Y-Y

Beige Beauty	Skookum	Johnnie Walker	*Lalique
Lemonade		*New Penny	Citronita
			Earthlight

3 Y-O or R

Altruist 3 O-R	Dimity	*Achduart	Sabine Hay 3 O-R
*Doubtful	*Trelay	*Brett	Ulster Bank
Sun Magic		Tom Jones	

3 Y-YYO or R

Irish Coffee		*Whirlaway	On Edge
Perimeter			Painted Desert
*Sunapee			*Spring Tonic

3 W-Y or WWY

*Aircastle	*Silken Sails	Oykel	Limey Circle
*Clumber	Delightful	Queen Size	
Impala	Golden Eye		
Torrish	*Jamestown		
*Tranquil Morn	Lollipop		
Woodland Prince	Park Springs		

3W-P or O rim

*Audubon	Blithe Spirit	Loch Assynt	Badanloch
Kimmeridge	*Lancaster	Langford Grove	*First Formal
Olathe		Lusky Mills	
		*Purbeck	
		*Rim Ride	

3W-R rim

*Merlin	*Dress Circle	Birdsong	*Star Trek
Greenfinch	Faraway	Four Ways	
Kingfisher	Omaha	Pakatoa	

3 Y-W

None	None	Moonfire	Wedding Band
		Silk Stocking	Lyrebird

3W-R or O

Crimpelene	Ben Rinnes	Dalhauine	Cairn Toul
Irish Splendour	Irish Ranger	Irvington	Cul Beag
Palmyra	Leonora		Dr. Hugh
Privateer			
Rockall			
Woodland Star			

<u>3 W-W</u>			
Achnasheen	*Angel	Delos	Benvoy
*April Clouds	Polar Imp		Irish Linen
*Cool Crystal			Monksilver
Snowcrest			*Sea Dream
Verona			White Tie
<hr/>			
<u>4 W-W or W-Y</u>			
Candida	Egg Nog	Gay Song	*Lingerie
		Gay Symphony	Eriskay
		Unique	
<hr/>			
<u>4 W-O or W-R</u>			
*Acropolis	*Achentoul	Snowfire	
Monterrico	Centerpiece	Tamoretta	
	Gay Challenger		
<hr/>			
<u>4 W-P</u>			
(Available cultivars are not of show standard)		*Elphin	*Cotton Candy
none	non	Kinbrace	*Delnashaugh
			Tropic Isle
			Samantha
			Pink Pageant
<hr/>			
<u>4 Y-Y</u>			
Fiji	—	Moonflight	Elixir
Papua			Sun Ball
<hr/>			
<u>4 Y-O or Y-R</u>			
*Tahiti	—	Discovery	*Grebe
*Tonga	—	Affable	*Beauvallon
<hr/>			
<u>5 W-W or W-Y</u>			
Lapwing	*Arish Mell	*Longspur	Sydling
Tuesday's Child	*Saberwing	Petrel	
<hr/>			
<u>5 Y-Y or Y-R</u>			
Harmony Bells	—	Jovial	—
Puppet			
*Ruth Haller			
<hr/>			
<u>6 Y-Y</u>			
Charity May	El Camino	*Rival	—
*Willet	Golden Wings		
	Jingle		
<hr/>			
<u>6 Y-W</u>			
None	none	none	Wheatear
			Swallow
<hr/>			
<u>6 W-W or W-Y</u>			
Greenlet	Ibis	*Trena	—
*Perky	Tracey	Surfside	
Titania			
<hr/>			
<u>6 W-P</u>			
None	none	Foundling	Cotinga
		Little Princess	Delta Wings
			Lilac Charm

<u>6 Y - O or R</u>			
Shimmer	Andalusia * Jetfire	—	—
<hr/>			
<u>7 Y-Y</u>			
Circuit	Bobwhite	—	—
Quail	Buffawn		
Sweetness	Wellworth		
<hr/>			
<u>7 Y-O or R</u>			
Stratosphere	Pukawa	Happy Hour	—
* Susan Pearson		* Indian Maid	
Suzy		(O-R)	
<hr/>			
<u>7 Y-W</u>			
Mockingbird	High note	* Canary	—
Oryx	New Day	* Intrigue	
Pipit		Hillstar	
<hr/>			
<u>7 W-W, Y, P</u>			
Curlew	Bell Song	* Wendover	—
* Eland			
Pretty Miss			
Quick Step			
<hr/>			
<u>8</u>			
Green Goddess	* Highfield Beauty	* Hoopoe	* Falconet
Golden Dawn			
<hr/>			
<u>9</u>			
Cantabile	* Angel Eyes	Bon Bon	—
Poet's Way	Emerald	Suspense	
* Quetzal		Tart	
Tweedsmouth			
<hr/>			
<u>11 W-W, Y or P</u>			
Cassata	* Phantom	+ Colblanc	—
Chablis			
+ Lemon Ice			
<hr/>			
<u>11 Y-Y, O, or R</u>			
Oecumene	+ Brandares	+ Tiritomba	—
	+ Girona		

(+ These recommendations came from Bill Ticknor.)

STARRING THE POETS OF F. HERBERT CHAPMAN

MEG YERGER, *Princess Anne, Maryland*

The poets of F. Herbert Chapman were "center stage" at daffodil shows during the first third of the twentieth century. At least thirty-six poets raised and named by him were exhibited at Royal Horticultural Society shows in London and Midland Daffodil Society shows in Birmingham.

In the terminology of the theatrical world this man from Rye, Sussex, England, might have been called an "angel" for the shows because he helped financially in a small way. As a member of Midland Daffodil Society, and for

several years a vice-president, he supported the shows in Birmingham with generous donations and subscriptions. As a member of the Floral Committee he helped judge all narcissus submitted and made suitable awards. Beginning in 1910 he gave a silver Herbert Chapman Poeticus Trophy for the seedling section to be won outright for a group of six distinct cultivars of poeticus not in commerce more than four years, including at least one cultivar not yet in commerce. Later the wording was changed to read three cultivars of true poeticus not in commerce, possibly in hope of encouraging exhibitors to enter. After 1916 the trophy was discontinued.

In 1912 and 1913 his firm, Herbert Chapman, Ltd., contributed generously to a special prize fund for winning exhibits in Royal Horticultural Society daffodil shows, in addition to and apart from the regular RHS official prizes. In 1914 and 1915 he personally contributed to the RHS money prize fund and his firm gave support to the RHS, as they had done in 1913, by taking full page advertisements in the *Daffodil Yearbooks*. The one for 1914 was outstanding in that it had a "paste-on" color plate. As a member of the RHS Narcissus and Tulp Committee he assisted in selecting blooms for First Class Certificates and Awards of Merit from those submitted in categories such as "Show," "Garden," "Pots," "Cutting," or "Rockery."

Behind the scenes, Chapman may have tried his hand at "script-writing." He was an advocate of what were known at the time as the parvi-coronati and the poets. As a member of the RHS Committee he may have been responsible for including, in the 1916 schedule, new classes intended to encourage hybridizing and exhibition of smaller flowered cultivars of daffodils from divisions now known as trumpet, long-cupped, short-cupped, and poeticus. The judges were instructed not to give points for undersized blooms of normally large-flowered cultivars. A Silver Banksian Medal was offered in the open class and in the seedling classes both a Silver Flora Medal and a Silver Banksian Medal were offered. Very likely other men on the Committee, including Engleheart, P.D. Williams, and A.M. Wilson who had similar leanings toward "poetlike" flowers, supported the introduction of such classes.

The same four men were on the board or Floral Committee of The Midland Daffodil Society and they used the same idea with the same divisions of daffodils for their 1917 schedule with the wording "Bantam Seedling Class. Six varieties raised by the exhibitor. No perianth to exceed three inches in diameter."

As for reviews of the show—Chapman wrote them, too. He did show reports for the RHS and Midland Daffodil Society and wrote articles for yearbooks, annual reports, and garden magazines usually using the pseudonym "Ornatus." Appropriate as the name was, the use of it bespoke a modesty and reticence about the man. His imagery and clarity in writing did a great deal to build an audience interested in daffodils for both house and garden. He wrote:

I like to see a big vase of fine trumpets placed at a corner of a majestic staircase or in the hall of a large house, but for my own little table or mantelpiece I enjoy more the beauty of the "poets" with their graceful, dainty form and warm coloring, which I never tire of enjoying and gloating over.

Self-effacing as he might have been as a writer, he was firm and outspoken where daffodils were concerned. He had so much experience, an "eye" for quality, and such a phenomenal memory of cultivars that frequent requests

for articles on specific topics resulted from his fame. He was gracious in writing something but seldom stuck to the subject on which he was asked to write. For instance, in 1938 he was invited to do an article about the newer daffodils and the vagaries of that season. Before getting around to that he reminisced about old daffodil personalities with quite a tale about Engleheart being a law unto himself. If he was not satisfied with his display, or not doing much business at a show, he took his trade exhibit down and carted the flowers home the evening of the first day. Next day visitors were confronted with a bleak blank space to the committee's discomfiture. He described Mrs. Backhouse's uncertainty as to whether she would or would not set up her exhibit, Mr. Dawson's manner of showing displeasure at the judging by posting a "not competing" sign the next time, Peter Barr wearing a Tam O'Shanter, Robert Sydenham taking everyone to dinner, and so on. True, these sidelights make more interesting reading forty years later than a list of new names and talk about the drought, but to write so shows a capricious streak in a quiet man.

F. Herbert Chapman was born in 1870 and in his early twenties became interested in choice bulbous plants such as iris, freesias, and others, eventually developing a nursery known as Rotherside Gardens at Rye near the Rother River in Sussex, England. Before beginning to cross-fertilize daffodils in 1904 he had grown daffodils commercially for about twenty years. The *Book of The Daffodil*, published in 1903 by the Rev. S. Eugene Bourne, and Mr. Robert Sydenham's brochure on seedling raising started him on that project. From then on the hybridizing of daffodils was the very core of his life. Never having married, his daffodils, particularly the poets, became his family.

He bought breeding stock from Engleheart and particularly liked to use Kestrel, bred by P.D. Williams. He preferred to make crosses in the middle of the day, in sunny weather if possible, avoiding times when frosts were imminent, and advised planting the seeds as soon as ripe, finding that such methods gave almost ninety-nine percent germination. His seedlings multiplied with, in his words, "a bewildering rate." His system of numbering seedlings was to attribute the letter "A" to crosses made in 1904, the letter "B" to crosses made in 1905, and so on. The number to the right of the letter indicated, by code, the parentage. The letter to the left of the letter indicated the selected seedling. Many of his seedlings he considered to be so good he intended not to release them into commerce but to keep them for breeding stock to ensure superiority of future cultivars. He saw in them a potential for producing top form and substance. Right away he began to keep a regular studbook to help in selection of parents and was glad to share the details on hybridizing with anyone who asked it. In his own words he derived "great pleasure in lending a helping hand to fellow enthusiasts who desired it."

Either luck or extremely keen perception of which crosses would be good ones brought him prizes for seedlings at the Birmingham show of 1909, only five years after making the first cross. The next year he had named poets of his own raising to enter—Caramel, Ode, and Elegy (Horace × Almira). Elegy was so pretty that W.B. Cranfield, who was a heavy buyer of new seedlings, bought the entire stock of it after it won an Award of Merit at Birmingham. According to Matthew Zandbergen, "kennel names" were given to the seedlings in exhibiting blooms a year or more prior to the actual date of registration as printed in *Classified Lists*. Dr. John Wister noted such discrepancies and in many instances ascertained the correct date of

introduction by correspondence with the originator. Quite often the date attributed to them in the *Classified List* was up to three years earlier or three years later than the date they were first exhibited.

By 1916, he added fourteen more named poets to the supporting casts in the RHS and Birmingham Shows. This group of fourteen included Allan-a-Dale, Ballad, Bloodstain, Bunthorne, Cadenza, Cantata, Gavotte, Hohenlinden, Quatrain, Rapture, Distich (which was used by Brodie in breeding), Ditty (Socrates × Acme), Marseillaise, and Sarabande. The last four were eventually given Awards of Merit. At the same time poets-under-number were shown in winning exhibits both in seedling classes and general collections with the same number sometimes appearing in more than one entry.

Probably some of those plants were victims of World War I. The War Agricultural Committee put restrictions on the amount of land that could be used for crops other than food which made for a cutback in daffodil production. This caused a financial hardship to men like Chapman whose livelihood came from bulbs. However, he did continue to make poet crosses and some were named and exhibited between 1921 and 1924, such as Rondeau, Farandole, Minuet, Spinet, and Grand Opera. Minuet (Kingsley × Socrates) became the darling of hybridizers and is possibly the only Chapman poet knowingly grown today. Spinet had an astonishing corona described as a citron colored eye divided into three segments by crimson lacing. Grand Opera (Kestrel × small-cupped seedling) was described by the Rev. Joseph Jacob in a list of outstanding flowers of 1923 as being three and five-eighths inches in diameter with an eye of red. It is pictured on page 195 of Calvert's *Daffodil Growing for Pleasure and Profit*.

During this time Mr. Chapman moved from his long-time home, Guldeford Lodge, to The Knoll, also in Rye. Possibly the move was made in an effort to cut back on expenses. He still had Rotherside Gardens as his nursery but may have needed other means of supplementing his income. According to Mr. Herbert Barr, Chapman "fell upon poor days" and he knew him as a wine-merchant but whether that vocation came at this date or later is uncertain.

At about the time of World War I the stocks of many bulb growers were depleted by eelworm. Probably Chapman's business did not suffer from this however. By his own statement he did not come into much contact with daffodil men other than for shows, meetings, and daffodil dinners. He worked alone and there is no indication that he was thrown socially with the other daffodil "greats" in spite of the fact that many of them specifically mentioned in their writings the high regard they had for his work and ability as a judge. It is more likely that the blow dealt to his business was from the over-importing of bulbs from Holland and the result of the United States embargo of 1925 on the purchase of British bulbs.

In 1925, the leading role in the daffodil world went to Mr. Chapman. The Royal Horticultural Society awarded him the Peter Barr Memorial Cup for outstanding work in connection with daffodils. His flowers were still in the act. Most of his show entries were his own seedlings or blooms of his raising in the short-cupped and poeticus divisions and still getting their share of awards—and applause! This must have been a source of pride and gratification to a man who favored those smaller flowers.

In 1927, many of his seedlings were included in the general collection of thirty-six blooms and in the Bourne Cup collection, as well as in short-cupped and poeticus classes. His system of numbering indicated that some of the

seedlings were from crosses made as early as 1904 and as late as 1921. One poet seedling, A 1, in the Bourne Cup Class appears to have been one he kept behind the scenes for twenty-three years except for entering it in a forty-eight cultivar collection at the 1913 RHS Show. Guy Wilson commented that it was "a handsome and striking example of what Chapman called his Super Poet Strain; a very tall big Poet with snow-white perianth and bold darkly rimmed eye." Probably many of the fine poets and small-cupped cultivars descended from poet seedling A-1, which was from a cross made the very first year Chapman began hybridizing daffodils. An article he wrote for the *National Horticultural Magazine* for April, 1927, indicates he had more poet seedlings coming along of similar breeding.

At the 1928 Show in Birmingham, Chapman's commercial stand was the best he had ever put up, according to Guy Wilson, and the flowers were "in the pink of condition and grandly grown, with many fine things." Quite probably he had decided to show the rest of his seedlings and sell off his stock so displayed his flowers with that in mind rather than entering them in competition.

The supporting cast in that show included new poets that were applauded eagerly. A.F. Calvert of Carnsulan Nurseries bought the poets Adieu (Acme × a poet), Chloride (Distich × Black Prince), Flare (Bloodstain × Ecstasy), Sodium (Acme × poeticus), and Vellum. J. R. Pearson and Sons got Bard of Rotherside and Vaudeville. J. L. Richardson took Inca. Solomon went to deGraaff Brothers of Holland. Cranfield added Border Minstrel to his stock and Mr. M. G. Collins bought a seedling which he later registered as Arthur Collins. Mr. Chapman registered Elba and Recessional (Socrates × Lullaby) himself. Possibly he thought of the Isle of Elba as a place of exile to which he himself might as well go now that he had parted with so many of his poet family. Surely he had in mind the end of twenty-five years with the flowers he loved when he selected the name Recessional.

Probably the stars of all of Chapman's poet productions were Grand Opera and Minuet.

The stock of Grand Opera was sold to P.D. Williams—appropriately because it was Williams's poet Kestrel that had been the seed parent, producing seedlings that were sort of a giant race of poets of great vigor and size. Mr. Chapman wrote about his flower himself:

I confess to a special love for the poeticus and small cups, and I may claim, I think, to have made a marked advance with these. This has been realized with the flower I exhibited as Grand Opera in 1923. It marked a great step forward and was considered by most people to be the finest poet to be exhibited up to then.

In 1927, J. Lionel Richardson included Grand Opera on a list of the best representative collection of twenty-four cultivars of narcissus at that time. He described it as a very large poeticus with flat, pure white perianth, and a large eye with a remarkably broad margin of deep red.

In the United States there may still be some forgotten plantings of Grand Opera in existence. Jan deGraaff of Oregon Bulb Farms listed it in his catalogue. He recalls that the Chapman bulbs were of good quality.

Mr. deGraaff also listed Minuet. So did Mrs. Pratt of "Little England" in Virginia where it was eventually naturalized in a "stream of daffodils" planted to make one think, when the flowers were in bloom, that a stream flowed through a meadow. It was described by Mr. Heath of Daffodil Mart, also in Virginia, as finely rounded, very overlapping velvet petals: small scarlet edged yellow cup. Mr. Edwin Powell of Hermitage Gardens near Chevy Chase,

Maryland, listed it in his catalogue as late as 1938 and used it as seed parent for Catawba 9 and Niantic 9 of his raising. B. Y. Morrison had an established colony of it in his own garden in 1933. In 1936 it was reported by Mr. C. E. Radcliff as being exhibited in the poet section of shows in Australia.

By that time Minuet was becoming scarce in England; but in Tasmania William Jackson, who had imported it from Mr. Chapman at least as early as 1929, was using it as a parent. According to him he had only seen one daffodil of his own raising whose bloom he considered perfect and that was a cross using pollen from Minuet.

David Jackson, Mr. William Jackson's grandson, found in his grandfather's records that he first used Minuet as a pollen parent in 1929 and last used it as a parent in 1940. There were several seedlings grown for evaluation and, as was his grandfather's practice, they were named, but not registered, when selected such as:

- 1933 — Gosta Berling — Minuet 9 x Banjo Patterson 9
- 1934 — Findaws — Minuet 9 x Dactyl 9
- 1937 — Gallia — Minuet 9 x Morocco
- 1938 — Saraband — Minuet 9 x Morocco

Other notes indicated certain varieties with poet-like characteristics that were used in breeding with Minuet. Mr. Jackson's favorite daydream was of "a seedling with a large flat poeticus white perianth and an equally large emerald cup." Some of the crosses he made with Minuet in the effort to make that dream come true used:

- 1931 — Harpagon — a short cupped Barrii with white perianth bred by P. D. Williams
- 1932 — Silver Salver — a short cupped pure white Leedsii bred by Brodie
- 1933 — Morocco — a short cupped Barrii with white perianth bred by Brodie
- 1935 — Dactyl — a poet bred by Engleheart
- 1949 — Dava — a long-cupped Leedsii with white perianth bred by Brodie

It must be that when the seedlings had been grown on and evaluated none of them attained a standard that made them worthy of naming. At any rate none exist in the records.

However, in the show reports only the names of the exhibitors were given—not the cultivars. There was strong competition among several Tasmanian growers in the poet seedling classes. David Jackson thinks Minuet was undoubtedly used for breeding by many of them as they all freely exchanged bulbs. For instance it was exhibited by his uncle, a Dr. Drake, in the Hobart Show in 1934 where it won Champion Poet. David expressed surprise that the breeding of poets has died out in Tasmania as it was so very strong prior to the Second World War.

Minuet's importance to breeders and growers from Australia and the United States surely is responsible for the fact the cultivar can still be seen in shows today. It is truly a tribute to Chapman's genius as a hybridizer that this is so.

By 1938, Mr. Chapman had moved to West Meade, Peasmarsh, Sussex, a more humble home than any he had lived in before. But he had room for at least some of his daffodil family. In an article he wrote that year he referred to his own garden as "a small one today" and mentioned that a larger proportion than ever of his seedlings flowered at four years than ever before.

He marked a number of them with the idea of growing them on and, if possible, increasing them.

This was not destined to be because of the shadow of barrage balloons, and proximity to the Straits of Dover and the English Channel which put him on the wartime attack route by air and by sea. His health began to fail and he was increasingly in straitened circumstances. He managed to continue to attend spring RHS meetings, shows, and daffodil dinners, and was always included on the discussion panel at the daffodil dinner following the RHS show, at least through 1940. The RHS shows were held without fail in London, sometimes in the midst of bombings, right through the war but there were fewer exhibitors and flowers. If Chapman was able, surely he would have been there but there is no record.

The decrease in popularity of the poets had begun in 1935 when for five years the dates of the show were too early for the poet cultivars. Mr. Chapman regretted that there was "a falling off of interest in poets and that people were not taking the pains with poeticus and showing them so finely as used to be done some years before." Just as in Australia and United States, the breeding of poets very nearly died out by the end of the war and the curtain fell on the end of an era.

F. Herbert Chapman died in 1945.

SOURCES OF INFORMATION

Twenty Annual Reports of Midland Daffodil Society between 1910 and 1939

RHS *Daffodil Yearbooks* 1913-15; 1933-40

RHS *Daffodil and Tulip Yearbook* 1946

Various articles written by Mr. Herbert Chapman

JUDGING MINIATURES AND SPECIES

NANCY WILSON, *Berkeley, California*

A couple of years ago I visited my friend Sid DuBose in Stockton. In his lath house he had a box of some 500 *triandrus* species in all stages of bud and bloom. They were cream, yellow, white; single flowered and multiple flowered; some looked up and some looked down. They had short stems and long, wide perianths and narrow perianths. Some perianths were thin and some twisted. Their coronas were short, long, fat, and thin, smooth rimmed and serrated. Each scape was an individual.

In an article in the *ADS Journal*, Dr. Bender asked why his *N. asturiensis* was disqualified from competition because of its large flower. He felt the larger the flower the better, the signs of good culture and care.

A judge gives a rare miniature a blue ribbon because she has never seen the flower before. Another gives a ribbon because the flower is very hard to cultivate and the grower has succeeded. One judge was overheard to say, "Oh, look at that little *scaberulus*. I can hardly see it, it certainly is the best miniature here today."

What name pleases you most? April Tears or Lintie?

How can we judge miniatures and species with so much variation and personal opinion? What do we need to consider to be fair judges? Some of the following information was gleaned out of *ADS Journals*; you may recognize it as your own. Some of it is my own opinion, and some of it is just common

sense. I hope that you will be helped to become fairer and more democratic miniature judges when I am through.

Judging these flowers is no small matter. The present regulations apply and do not apply at the same time. How can the judge carry in his or her mind an image of the most perfect species when the species go off cloning across the countryside? How can we provide judges with the images of cultivars as they are hybridized around the world? What are the standards of perfection? Are they going to change? What is going to happen to the round, overlapping perianth if the earth suddenly receives a visit from a distant star and star shaped flowers become the desirable goal for breeding?

Wild populations, natural selection, and breeding all contribute to a flower. Roberta Watrous states, "the names of wild plants refer to populations 'that are more alike than they are different,' although considerable diversity may be expected and positive identification may not always be made from a cut bloom alone, as leaf and bulb characteristics differ." An example of this is *N. rupicola* and *N. juncifolius*. *N. rupicola* has grey-green indented leaves and a six-lobed corona; *N. juncifolius* has round, dark green leaves and often has more than one flower, but the flowers of both species are very similar.

Fr. Buchholz states, "We should all oppose adamantly the effort to classify all daffodils only by appearance. The species and wild hybrids have the genetic banks and sources from which all others come and these must be treasured so that the original sources are not lost. For example, some scientific expeditions to South America are now collecting all wild potatoes and cultivating them as a genetic bank, so that they do not become extinct; many valuable traits may still lie hidden and unexploited in them. The same attitude must hold about the sources of all cultivated plants. I suppose the old cultivars, also, being nearer the sources, may have traits that further breeding programs will reveal and that may have been lost in later varieties."

How does this relate to judging species and miniatures? How do we protect this genetic bank and become democratic judges?

The ADS has wisely formed a Miniature Committee. Although changes do not come easily when referred to Committee, a Committee does provide a backdrop against which new ideas can be added and old ideas can be considered for their merit.

If we know the measurement of a cultivar as it grows in the hybridizer's garden we will have a standard for that flower. If we add a good colored slide library to this information we will have a visual picture. This picture will help us to know if the flower before us is indeed the right one. An example of this is Marionette. The Marionette grown in California is a large flower. Is this the real Marionette? Philomath is another example. Does my Philomath grow like yours? Does yours grow like Grant Mitsch's?

What is the ADS definition of a miniature narcissus? A miniature narcissus is one which has been approved by a majority of members of the ADS Committee on Miniatures. The Approved List of Miniatures of the ADS is the authority for describing a narcissus as a miniature. These descriptions are not specific measurements but descriptions representative of various soils and climate zones in all sections of the country. Additions and deletions are printed in the December issue of the *ADS Journal*. All additions and deletions are published for the general membership to consider before becoming final.

In judging miniatures the Judge needs to consider the parentage of the cultivar as well as judging the cultivar for the division to which it is assigned. Judges need to familiarize themselves with the different species and how the divisions are based on them. Whenever possible look at lineages when judging. As species and cultivars are crossed over many generations the

flowers will only be true to themselves and must be perfect in their own terms. Bulbs settle down after a few years and so the hybridizer may assign a flower to one division and it may consistently be representative of another division as it matures. An example of a change in form is seen in the *poeticus* species and hybrids. The species have pointed perianths and the hybrids have round, overlapping perianths.

The purpose of judging is to raise the standards for flowers and to educate the general public and interest them in growing these beautiful flowers. Another purpose should be to perpetuate the gene bank. Unlike the judge who just 'loves *scaberulus*,' we as judges must look for quality. Make your decisions based on knowledge acquired by experience in growing, attending shows, and keeping current on the literature. Internalize your judging ethics. Be kind and courteous. Remember that the exhibitor of the flawed flower in front of you may be standing behind you. Be constructive in your criticism of his prized specimen. A show is held for public education and to elevate standards in growing and hybridizing. Help the exhibitors by writing your comments in such a way that the grower will be eager to go home and try again.

I will briefly go over specific points that are applicable to miniatures under the ADS scale of points for judging.

Condition: Specimens for show need to be in top condition. Condition covers mechanical injuries and factors that are not inherent in the flower. Judges who are assigned to the miniature classes can make their work easier by taking a little botanical lens to scrutinize the tiny flaws. A tear in a miniature deserves the same penalization as a standard. Look to see if the cups are burned by the sun. A popular flower is Sundial. Sundial sunburns very easily. In *jonquilla*, *triandrus* and *tazetta* species and hybrids there may be several flowers to a stem. As these flowers open their pedicels and long perianth tubes may expand rapidly and break the sheath. They may also get caught up in it and become deformed.

Student Judges often ask how to tell maturity in a multiheaded specimen. The most perfect scape has all of the florets equally open and of the same size, the next best has some flowers fully opened and some in bud. Old brown flowers are not in good condition.

Form is the genetic inheritance. In order to judge miniatures well the judge must be familiar with the characteristics of the individual cultivar or species. The corona should be round. Notches, serrations and ruffles may be present as in the example of *N. rupicola* with its six-lobed corona. The perianth should be smooth, not ribbed. Many perianths in small flowers are ribbed. It is a way of the little flower getting in more surface area. It may be beneficial to the plant but not to the show bench. The perianth of Minnow ends in large mucros. This is characteristic of the flower and cannot be faulted. However, deviations in form need to be in good balance, of equal size and evenly distributed. A small daffodil can have good axis balance. This is often the final factor in deciding a winner. Axis balance can be improved with a gentle twist of the stem or pedicel by the exhibitor.

The *Handbook for Exhibiting and Judging Daffodils* states grace is an important factor and should be considered under form. What is grace? Grace is an aesthetic value. It is synonymous with charm. A graceful plant would be beautiful with free flowing curves, easy and natural contours, and a basic elegance. Grace is a subjective quality. Are bulbocodiums graceful? *B. obesus* has a very large corona on a stiff small round stem. It looks out of proportion and would not be considered graceful if compared with *N. bulbocodium*

nivalis which has a corona in good proportion to its perianth segments and stem length. Artistically it would be graceful.

Miniatures usually have good substance when mature. Their small nature seems to encourage the bulb to put its nutrients where they will do the most good. The larger cultivars, as Frosty Morn, have a thinner substance.

Texture is the smoothness or roughness of the tissue. It is hard to see roughness on a small petal without a lens, but sheen and vitality do show up and give the flower an aura of health and beauty.

Color varies due to climate, culture, and nutrition. The miniatures grown in Northern California are very intense in color due to the soil and copious winter rains. In Southern California the colors fade out quickly due to the dryness and sun. The clarity of color is important. Green streaking should be penalized, but the green glow of Sundial and Xit enhance their appearance. There is only one reverse bicolor miniature, Gipsy Queen, and only one reversed species *N. triandrus pulchellus*. A fully reversed flower would score more than an immature one.

Is smaller better? This is a controversy. As a judge I would rather see a perfectly grown specimen, perfect for its form and description. This is a factor that comes with study and knowledge and excludes prejudice. If a flower has good proportion and balance it is graceful by definition. Segovia when grown well has good form; W. P. Milner is charming in the garden in groups, but has too large a head for its stem on the show bench. To know these factors helps us to determine whether the size of the specimen in front of us is appropriate.

Stems show us evidence of health. A small stem can show disease and must be eliminated from competition. Stems should be exhibited as near to the way they grow as possible. If stems are cut off for judging so that all the flowers are the same height we are aiming toward a breed of daffodils that all look alike.

ADS awards for miniatures are to honor outstanding, distinctive blooms. The Miniature Gold Ribbon is for the best miniature daffodil in the horticultural section. Only miniatures on the ADS approved list [and seedling candidates] can be entered as miniatures in an ADS show. Polls and symposiums have shown that miniatures with jonquil blood win the most Gold Ribbons and those with cyclamineus parentage are second. The Lavender Ribbon is for a collection of five cultivars and/or species of miniature daffodils. In the 1973 symposium on miniatures, Mrs. Anthony noted that varied collections catch the eyes of the judge. Color and balance are important factors when the flowers are equally good. If all other things are equal, the judge should look at how the collection presents itself. The flowers can be different but should complement each other. The Miniature White Ribbon for a vase of three stems of one cultivar or species is usually staged in a triangle. Ideally each scape should have the same number of florets, all the same size.

More and more miniature seedlings are being shown. The judge must be aware that a miniature candidate can be entered in the division the originator chooses. Merit and uniqueness are values to be considered.

Species and miniature daffodils are beautiful flowers. They comprise varied and unique forms that need to be recognized and preserved. What do we know of the future? We have not figured out all of the past. Humans have a sense of art and beauty. One of our goals has to be to appreciate and protect the essential components of species in nature for what end we do not know.

(The above article was presented as part of the Judges Refresher Course in California.)

LANDSCAPING WITH DAFFODILS

MICHAEL L. HEGER, *Waconia, Minnesota*
(from the 1981 Yearbook of the Daffodil Society of Minnesota)

The word "landscaping" like the word "love" has become a rather ambiguous term that means different things to different people. Therefore, one person's perception of what landscaping is may differ radically from that of another and the final products will not achieve the same purpose. Merely putting in a foundation planting in front of a house is not landscaping. Nor is surrounding a lot with a fence and planting an unrelated collection of ornamental plants landscaping.

For the purpose of this article, let us think of landscaping as the art of creating a plan to make use of your land in the most attractive way. The final plan should depend on the site's natural advantages and its orientation to the sun and wind, your personal gardening interests and other activities, the amount of time and money you have to spend on the garden and even the area surrounding your site. You may even find it necessary to reshape the land somewhat to achieve your desires and probably will want to add some architectural features in order to display the plant material to best advantage.

You may wonder how all this talk of landscaping relates to your desire to grow and enjoy daffodils. If you want to achieve true artistic effect and beauty with daffodils you must, in the process of developing the landscape plan, decide how you can best display them in your situation. Growing daffodils in rows, though practical from a commercial or hybridizer's point of view, is not landscaping. It is not a natural looking phenomenon and does not relate well to other plantings. Remember that even though our homes are not naturalistic structures, we should strive to make the surroundings appear so.

There are a number of ways daffodils can be used in the landscape and whether you use one or several of them will be mainly determined by your personal gardening interests and your site. Always strive to display these plants for maximum beauty and enjoyment. There is certainly nothing wrong with using several different approaches to landscaping with daffodils as long as all the elements fit together well in the overall plan.

Probably the most common way in which daffodils are used in the home setting is the mixed flower border. If such a border is properly designed, it will be a harmonious season-long thing of beauty where all the elements supplement each other and work together. Daffodils can certainly be one of the key elements for spring color. The most successful flower borders have some sort of background which the flowers are seen against and that shows off their colors. This background also provides the flowers with some protection from bad weather. The material may be any of a number of things including evergreens, shrubs or a fence but usually it should be dark in color as most flowers lose some of their effectiveness against a light background.

The daffodils are best planted in the middle of the border interspersed with other perennials like bleeding heart, hostas, peonies, daylilies and phlox that will hide the dying foliage of the daffodils after they bloom. Pockets of annuals planted over the clumps after bloom could be used to achieve the same purpose. The number of bulbs planted in each group will vary somewhat with the overall scale of the garden but, in most cases, somewhere between six and twelve seems to work out well. The yellow and white cultivars are probably easiest to place in relation to other flower colors but other stronger colors can certainly be used when an accent or contrast is desired. Mulching these

clumps in spring as they begin to grow will prevent the flowers from being spattered with mud during rain storms. Some daffodil cultivars that lend themselves nicely to use in the flower border include: Arctic Gold, Cantatrice, Rashee, Ormeau, Ceylon, Court Martial, Vulcan, Festivity, Wahkeena, Daviot, Passionale, Salome, Accent, Easter Moon, Daydream, Glendermott, Aircastle, Glenwherry, Merlin, Cheerfulness, Charity May, Kinglet, Dickcissel and Actaea.

Another means of display, particularly valuable to gardeners developing large collections of daffodils, is planting the bulbs in exhibition beds. The same general rules concerning backgrounds for mixed flower borders apply here. In some cases, it may be possible, by the use of shrubs, to create planting bays within the beds so that only a limited number of the total clumps are seen at one time. The bare appearance of these beds after the bloom season can be handled in one of two ways. The bulbs may be grown in combination with a perennial ground cover such as *Asarum europaeum*, *Phlox stolonifera* or *Potentilla tridentata*. At bloom time, the lush green foliage of the ground cover provides a background for the flowers and helps keep them clean. Then, after bloom, as the daffodil foliage dies the ground cover masks the unattractive appearance. In some situations, gardeners will use annual flowers in place of the perennial ground cover. The annuals are planted into the bed after bloom has finished and will hide the dying foliage as they grow. Their flowers can then be enjoyed in that bed for the balance of the growing season. Just which one of these two methods a gardener uses depends on personal taste as well as how often and with how much ease he intends to divide the clumps. Daffodils planted in exhibition beds are best grouped in clumps of at least three to five bulbs of each variety. Any of the good garden cultivars like those suggested for the flower border are appropriate in this situation and even daffodils being grown for show flowers can be planted in these beds. It is important when planting bulbs in exhibition beds to pay attention to bloom height so that the taller daffodils do not hide the shorter ones.

Gardeners with an avid interest in rock gardening have a different group of daffodils to work with. There are a number of miniature daffodils that make quite a show tucked into the rockery but would be lost to sight in the scale of most other garden uses. In fact, some of these daffodils will only live in cultivation with the special soil types and growing conditions often created in a rock garden. The rocks used as structural elements act as warmers and protectors in the early days of spring and the rock mulch, often used to cover the soil, protects the delicate little flowers from being marred with soil.

Unless the rock garden looks natural the daffodils and other plants will not create a very pleasing effect. The gardener with natural slopes on his site can create a rock garden relatively easily. If not so lucky, a spot can generally be located where a slope and rock garden in scale with the existing contours can be tastefully built. Miniature daffodils used in such situations are best seen in uneven groupings drifting down the slope duplicating how one might find them in the wild. Some possible daffodils for the rock garden are: *Narcissus bulbocodium* and its varieties, *N. cyclamineus*, *N. juncifolius*, *N. asturiensis*, *N. rupicola*, *N. triandrus* and its varieties, April Tears, Hawera, Pixie, Pixie's Sister, Flyaway, Segovia, Mite, Little Beauty, Chit Chat, Tete-a-tete, Bobbysoxer, Xit, W. P. Milner, and Snipe.

There are a number of other ways that daffodils can be utilized in the landscape. This may involve inserting informal groups of bulbs in small open areas between shrubs or in foundation plantings. Each grouping should be a

separate variety. A few daffodils tucked on the backside of a small pond can be stunning especially when floral reflections are seen on the water. Planting a few clumps of daffodils along the entry way into your home or along garden paths can make a walk through the landscape an enlightening experience especially if fragrant cultivars are used. Daffodils can also be grown in containers. This type of culture is especially valuable for spring color on or around patios and other architectural features. Again, this is a fine opportunity to use fragrant daffodils. Remember, however, that this type of culture requires special winter protection of the containers.

One final way of using daffodils in landscape situations is often referred to as naturalizing. I do not feel this is an accurate term for a truly naturalized planting is entirely on its own. It is free of man's cultural aid and is able to survive under complete neglect and even perpetuate itself. Very few so called naturalized plantings created by man meet these qualifications. The sites where one finds true naturalized plantings are not normally available to most gardeners. They include such areas as forest edges or openings, meadows and barren, rocky hillsides. Therefore, let us use a more appropriate term and call this concept "planting for natural effect."

The sites available for this type of planting may be along a woodland path, among native trees, an odd out-of-the-way corner of the garden or even in areas of rough grass (but not in quack grass or other strong growing rhizomatous grasses). This type of planting is not compatible with the home lawn since the grass cannot be cut until mid-July after the daffodil foliage has died down. It becomes quickly apparent that most homeowners just do not have these types of sites or enough space to do a really effective natural planting. Therefore, if you are limited in these respects, concentrate on the other means of landscaping with daffodils and leave this one to larger property owners and public institutions.

If you feel that you have the proper location and adequate space, then keep the following tips in mind. Each grouping that you plant should consist of a single variety. Groupings of mixed varieties are very spotty and just do not carry enough visual impact. The number of bulbs to use in a group depends on the amount of space available but a minimum of 100 bulbs is a good starting point for creating good garden effect. Lots of 1000 bulbs each are quite stunning if the space is available. It is always better to have one large group instead of several smaller ones.

The shape of the planting should be irregular in outline and may be dictated by natural contours and features of the land. Some gardeners simply take handfuls of bulbs, throw them on the ground and then plant the bulbs where they have fallen. This system does work reasonably well but if you have ever studied a naturalized planting, you know that there is a certain irregular arrangement of the plants that is dictated by natural reproduction of the species. The densest plantings and most closely spaced bulbs are around the mother bulb usually near the center of the grouping. The farther away from the mother planting the greater the space between the bulbs. The most dramatic natural effects are achieved by simulating this pattern being careful not to become too regular and predictable with bulb spacings.

It should also be pointed out that in this type of culture deep planting of the bulb is advisable. This prevents the clumps from increasing too rapidly and deteriorating in their flowering capability. For most normal size bulbs, a depth of six to eight inches is ideal.

The best daffodils to use for natural plantings are the small flowered types since their size and form are closest to wild species daffodils. The most appropriate classes to use would be short-cupped (Division 3); triandrus (Division 5); cyclamineus (Division 6); jonquillas (Division 7); poeticus (Division 9); and species, wild forms and wild hybrids (Division 10). A selection of varieties might include the following: Thalia, Tresamble, Peeping Tom, Forfar, Beryl, February Gold, Sweetness, Geranium, Actaea, *Narcissus* \times *biflorus*, *N. poeticus recurvus*, and *N. jonquilla*.

No matter which one or what combination of the uses of daffodils in the landscape you decide to undertake, your success in growing them will depend on several factors. Good quality bulbs are the first essential ingredient. If buying bulbs via mail order, make sure you are dealing with a reputable dealer. If hand picking your stock, select bulbs that are hard and firm, of even color and without any bruises or cuts.

The other important considerations to bear in mind are good drainage, proper soil preparation, correct planting depth and spacing, early planting, proper fertilization and watering practices and mulching. The one factor that you cannot manipulate is the weather so hope for the best. Enjoy your daffodils and have fun experimenting with various plant combinations.

THE TAZETTAS

(from the newsletter of the Southwest Region, March, 1981)

Thirty-five years ago I planted Paper White, Minor Monarque, Soleil d'Or, Scilly White and White Pearl. These were from my mother's garden which she had grown for thirty years. They have been a joyful pleasure all these many years. It was a tradition with her and me to use bouquets of Paper White tazetta (*tazetta papyraceous*) and Minor Monarque at Thanksgiving and Christmas. Their heavenly fragrance and white blossoms added to the spirit of these seasons. Rarely do they fail to bloom for these occasions.

They have never been more beautiful than this season. Indian summer lingered through January rapidly bringing spring-like days. The buds of Scilly White, Soleil d'Or and White Pearl were just ready to open when a mid-February winter blast of 18 degrees arrived. These beauties can take quite a freeze but do not tolerate sudden changes in temperature. The weather fluctuation in a given place at a given season can telescope or extend bloom periods. A gardener cannot control this factor. The telescoping of these daffodils was sad. In sheltered locations a few managed to survive and bloom for ten days. Fortunately all tazettas do not bloom at the same time. If all continues as predicted, March will be spectacular as Silver Chimes, Laurens Koster, Geranium, Scarlet Gem and Golden Dawn will burst forth in all their glory. These flowers are the only daffodils that bloom in my garden from November to early April. I encourage you to grow all of these varieties of Division 8 that you can find in trade or from friends. The old varieties will never leave your garden. What a blessing.

Looks as if it will be one to remember—just like 1980. I wonder if it is too much to ask for rain, no late freeze, not too much heat, no backaches, and lots of energy and enthusiasm for all of you.

BERTIE FERRIS, Dallas, Texas

ANTICARCINOGENETIC COMPOUNDS IN NARCISSUS AND AMARYLLIS

L. S. HANNIBAL, *Fair Oaks, California*

Recently while reading the *Botany of China, a Report of the Botanical Society of the American Delegation to the Peoples Republic, May 20-June 18, 1978* (Anitra Thorhang, Editor, c/o United States-China Relations Program, Stanford University, 1978) I noted that at Nanking University in the laboratory of secondary plant substances they were working with *Narcissus tazetta* var. *chinensis*. Extracts from these bulbs contain two alkaloids known as pseudolycovin and pretazetetine. The former is effective in combatting leukemia in mice. The latter is a reverse transcription inhibitor and an anti-tumor agent for the treatment of brain, stomach, and liver tumors. The peak of the alkaloid content occurs in the bulbs during the dormant season. Both compounds have been noted to affect cell elongation in the *Avena* coleoptile test, as well as upsetting mitosis and protein synthesis when used at strengths of 2 mg. per liter.

It has been known for many years that the African natives used the juice or compresses of crushed *Crinum* to cure tropical sores and cankers. Correspondence with the USDA in November of 1979 indicated that the National Cancer Institute has undertaken a study of various *Crinum* extracts and found the *Crinum amoenum* from India more effective than the African species. When they submitted a sample to the writer for species identification, he suggested that they try the Cape of Good Hope *Amaryllis belladonna* and sent ten pounds of bulbs. The result was an order for 800 bulbs during the spring of 1980 with the report that the crude extract has shown a high level of activity against mouse P388 lymphocytic leukemia, one of the best tumor systems in the cancer screening program.

It is not known if the N.C.I. has investigated *Narcissus* to date, but tests indicate that the *Amaryllidaceae* all contain a related series of alkaloids having potential medical uses.

BEGINNERS CORNER

Coming up with a fresh topic for this column is not always easy! However I'd like to share part of a letter from my dear friend and mentor, Mary Elizabeth Blue, with you. She writes, "I just finished reading Brian Duncan's letter in the Northern Ireland *Newsletter* and enjoyed it no end. I couldn't help thinking back to the time when I scrambled this way and that to learn more about daffodils. I couldn't find a soul who would tell me one thing. I was so frustrated!! Then I joined the American Daffodil Society and received a cordial letter from Helen Link—ask and I would receive! How important a Regional Director is can never be explained. Everyone is shy about asking and no one wants to appear ignorant or be a nuisance . . ." And of course she's quite right. We all had questions when we first developed an interest in daffodils. So, Beginners (and those shy ones among you who may not be Beginners),

let's have your questions! I promise to find someone to answer it, whether it's on growing, showing, personalities past and present, or whatever. Just send your questions to the editor—and if you can't find this column in a future issue, we'll know there were no questions!

By the time this arrives in your mail, people in some areas of the country will have begun digging. Here in Tennessee, I'm told that many people plant back immediately rather than waiting until fall. I have also discovered (out of necessity) that daffodils can be moved as green plants and treated as perennials. I moved my "temporary bed" last year, and this spring I found I'd missed some bulbs which were coming up in what was to be lawn area. Now my husband is a fast man with a lawn mower, so I knew those daffodils had to be moved if they were to be saved! So they were dug and planted on the hill among the trees where they grew and flowered. Now if I can just keep Paul and his lawn mower away from them . . .

THE TAZETTA IN WINTER

(from Tete-a-Tete, newsletter of the Daffodil Society of Minnesota)

Since September, I have been working with a client near Houston, Texas. It's been several years since I was last in Gulf coast Texas in Winter, but I don't remember seeing daffodils like I have this year!

I have read that tazetta daffodils will do well in the southern United States, but I had never really seen evidence of that outside the collections of a few ADS members.

Paperwhites (*tazetta papyraceous*) grow everywhere down here and were in full bloom in December! There is a southern tradition which involves use of Paperwhite daffodils as Christmas decorations. How lovely their fragrant, white blossoms must be contrasted with evergreen boughs and holly! For those without their own supply, I saw them stocked by the local florists.

I also saw quite a bit of Grand Soleil d'Or growing in gardens and available as cut flowers in florist shops. I have never seen it with such an orange cup before. Because of the cool nights and pleasantly warm days, these daffodils will last for weeks in the garden.

Of greater interest to me were the several different tazetta hybrids that I discovered growing in the area (40 miles east-southeast of Houston). I didn't recognize any of them, but found one type to have been especially appealing, primarily for its heady fragrance. Having much the appearance of a particularly robust form of Paperwhite, the flowers were a clean white, rather narrow-petaled and with lemon-yellow cups that faded as the flowers aged — particularly in water, indoors. Larger stems bore more than two dozen flowers and buds and would last for several days in the house. The plants began blooming in late January providing quite a show massed in garden plantings in the older sections of town. Frequently, I saw clumps of this cultivar along the roadside, in parks and around long-disappeared houses. I plan to get several bulbs of this cultivar to try in Minnesota.

Over the holidays, I bought two dozen of the last Paperwhites Bachman's had in stock. When I returned to Texas, I planted them among the shrubbery in front of my apartment. Last week, after two weeks of substantial rain, the shoots are three inches tall and envelop fat buds. Near the end of February, I'll start my daffodil season all over again!

—DAVE KARNSTEDT, W. St. Paul, Minnesota

THE NARCISSUS IN ANCIENT LITERATURE

ARTHUR V. GILMAN, Goshen, Connecticut

What we attempt when we garden is the formation of an ideal landscape, a setting for our personal idyll. The poets of Greece and Rome succeeded in forming an ideal landscape, and called it a 'pastoral' or 'bucolic' setting. It is a place removed from the city and is defined by three elements: music (panpipes), animals (sheep and goats), and plants. Of plants that make up the pastoral, most are uncultivated—ivy, oaks, hazel, and the generic 'flowers.' When a poet seeks detail, he usually mentions violets and hyacinths and leaves it at that. But in a famous pastoral romance, *Daphnis and Chloe*, the author Longus writes, describing a garden: "The roses, hyacinths, and lilies were cultivated by hand; the violets, narcissus, and pimpernel were the earth's gift." (1) This, along with other descriptions of gardens, which were more like orchards than ornamental settings, leads one to conclude that unlike other flowers, and specifically unlike the rose, narcissus were not in cultivation in the classical world. Even so, there are some fascinating references in ancient literature to our flower.

The 'locus classicus,' or poem most central to the understanding of the idea, is in Book 3 of Ovid's *Metamorphoses*. This long Latin poem, published in 8 B.C., is a clever and witty collection of tales about various mythologic characters who were changed into different bodies. It is psychologically exact in that the characters' new bodies fit their old personalities.

Ovid gives a poetically stunning story of the youth Narcissus, who was a very handsome eighteen year old. "But there was in his slender form such severe pride that none possessed him." He was a hunter, and one day stopped from the chase to take a drink from a pool. While he was leaning over the pool, Narcissus fell in love with his own reflection. True to an old prediction that said he would live long unless he knew himself, Narcissus died from a broken heart when he at last realized his love was in vain. "Then too after he had been received in Hades, he kept watching himself in the River Styx. His water-nymph sisters lamented and sheared their hair for their brother's sake; and the wood-nymphs lamented. The nymph Echo redoubled their wails. And now they were preparing the beir and the pyre and the torches for the funeral - Nowhere was the body! In place of the body they found a yellow flower, with white petals all around."

Some have suggested that the narcissus is a physically fitting transformation, with its nodding face, for someone gazing into a pool. From the poem itself, though, it is clear that the Latin word for yellow (*croceus*, literally the word for crocus or saffron) here means reddish, and plays on an earlier theme in the poem, that Narcissus's chest was reddish in color where he repeatedly struck it in anguish, while the rest of his body was beautifully white.

Another Roman poet, the excellent Virgil, mentions the narcissus only a few times, but always with great power and poetic effect.

The Goddess and Apollo abandoned the fields,

The barren grass and empty stalks spring up.

Instead of the sweet violet and the purple narcissus,

The thistle and the thornbush spring up with their terrible spines.

Purple narcissus? Perhaps a *N. poeticus* with a very red cup? Or would 'royal' be a better translation?

To the Greeks, however, the narcissus was a white flower, apparently *N. tazetta*. "Now the calyx of the rose and the narcissus was as one, as to the

outline, it was the bowl of the plant. As for color of the much-divided petals round the calyx, the rose was like blood above and milk below, whereas the narcissus was wholly the color of the lower part of the rose." (2) Later on the same author, Achilles Tatius, compares the color of the narcissus to the white of the eye.

The tragedian Sophocles mentions the flower but once, in a very obscure passage, and gives it the epithet 'kallibotrus' which means 'beautiful cluster.' And in one of the most beautiful passages of all ancient literature is given a description that must be of the loved Paperwhite.

The Homeric Hymn to Demeter:

[Persephone] was picking flowers up in the soft meadow, roses and crocuses and lovely violets; and irises and hyacinths and a narcissus which grew, a lure to the blushing girl. Gaia had put it there, by Zeus's wish, to indulge Polydektes, a shining and wonderful thing. It was a holy thing to see, for immortal gods and mortal men; from the root a hundred flowers grew and it smelled a very sweet smell. All heaven above and all the earth laughed for joy, and the salt swell of the sea.

For those interested in identifying this flower more exactly, consider the locale to be Sicily.

The word itself is Greek and means the flower, but the root is the same as in 'narcotic' and means sleep or trance, perhaps because of the poisonous nature of the bulb. The flower is seldom mentioned in this sense, although the reference in Sophocles may possibly connect the flower with the underworld goddesses, and the flower in the passage above, the lure, draws Persephone to a sad fate in the underworld.

But don't fear for your life! Our flower has better powers. In a short poem in a light vein, titled *Potions for a Lady's Face*, Ovid gives a recipe for a night cream that includes barley, ground up deer's antlers and "twelve narcissus bulbs without skin, which a strong hand crushes on clean marble." In the morning, "your face will shine brighter than your own mirror."

1. Moses Haddas, *Three Greek Romances*, New York: Bobbs Merrill, Inc., 1953.
2. S. Gaselee, *Leucippe and Clitophon*, Loeb Classical Library. Cambridge, Massachusetts: Harvard University Press, 1915.

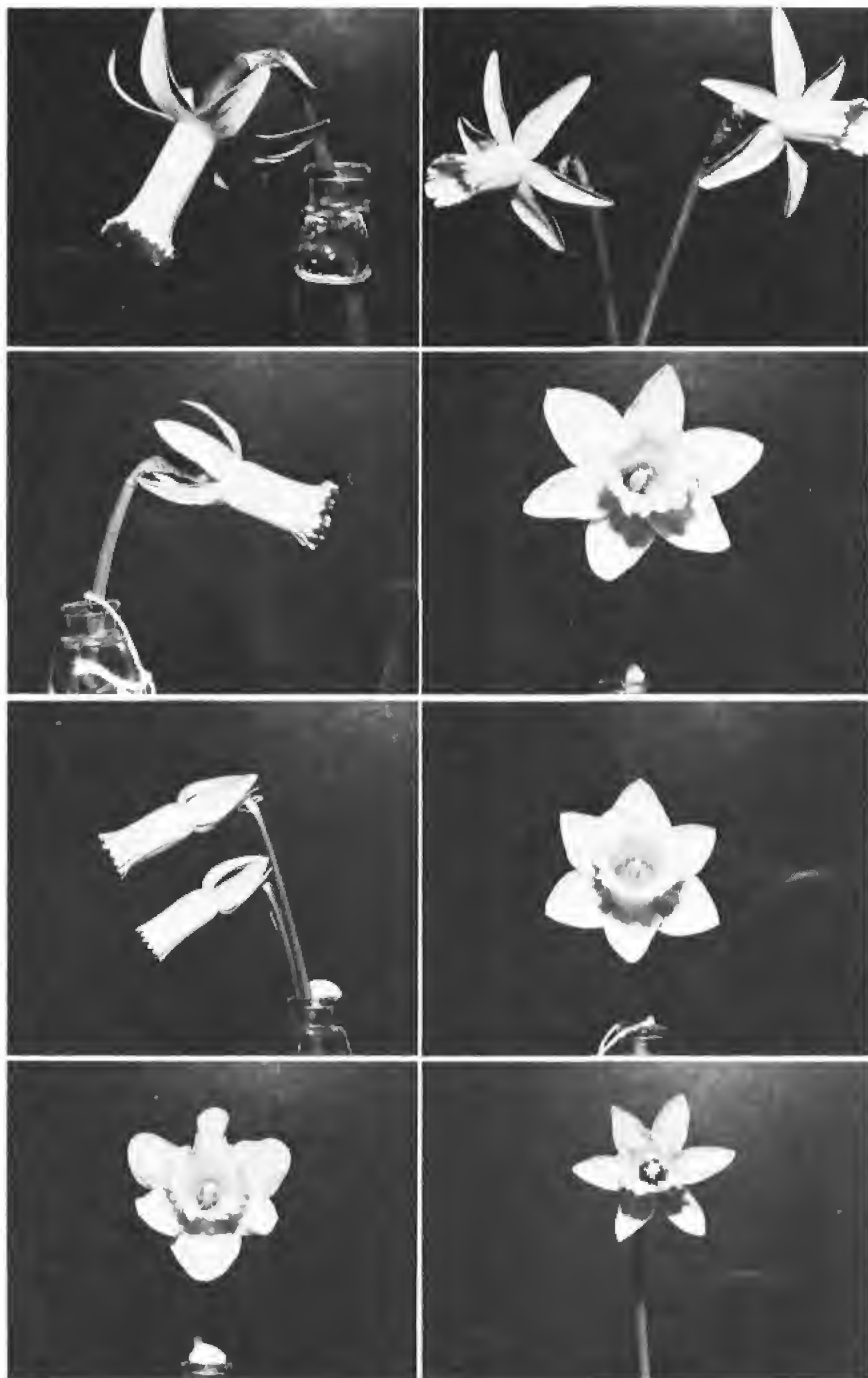
SOME MINIATURE SEEDLINGS

MARY LOU GRIPSHOVER, *Franklin, Tennessee*

Knowing full well that an editor should edit and let the writing to others, I decided to write this article for two reasons. First, Peggy Macneale, our Miniatures Committee Chairman, asked me to do it; and second, since the group of hybridizers decided in California that one of us should write an article for each issue of the *Journal*, it seemed reasonable that I should go first, since the deadline was fast approaching.

This is not a "how-to" article, nor is it an article on terrific new seedlings. Rather I'm just going to discuss some crosses I've made and the results I've had, and hopefully it will encourage some of you to try growing your own miniature seedlings.

My first crosses were made in 1968—but no seed germinated. Several from 1969 made it to blooming size, but only one, Canrmoon × *jonquilla*, is anywhere near miniature size. The whitish flower is small, but it has a long



Top left, 73-1-5 (*Bagatelle* × *cyclamineus*); right, 73-1-1. Second row, left, 73-1-3; right, 73-3-2 (*Topolino* × *Lilliput*). Third row, left, 73-6 (*Small Talk* × *cyclamineus*); right, 73-11-18 (*Wee Bee* × *Lilliput*). Bottom left, 73-13-2 (*Bagatelle* × *Mustard Seed*); right, 75-3 (*Kibitzer* × *Candlepower*).

stem that usually carries two florets. It's a poor grower and the buds often blast and it will probably be discarded. It is the only cross of a standard with a species that I've bloomed that has been small. Most have been standard size for Division 5 or 7.

The first true miniatures bloomed in 1977 from a cross of Bagatelle × *cyclamineus* (73-1) made in 1973. Currently there are eight different cultivars from that cross which show varying degrees of reflexing in the petals. All are yellow. They also vary in rate of increase and floriferousness, as 73-1-1 had six blooms this year, while 73-1-4, -5, and -8 had only one bloom each. They bloom very early, ahead of Bagatelle.

A few days earlier to bloom are two crosses which appear similar. One is Bagatelle × *asturiensis* (73-14) and the other is recorded as Bagatelle × Quince (73-16)—which it obviously isn't. Since the crosses are so similar, it makes me wonder if they aren't both Bagatelle open pollinated. The blooms look much like a sturdier *asturiensis*, which is fine with me since I can't keep *asturiensis*. They are increasing, with more than half the bulbs having three or more blooms this year.

Topolino × Lilliput (73-3), after eight years, gave a mini trumpet with a whitish perianth.

Small Talk × *cyclamineus* (73-6) first bloomed as a seven-year-old in 1980. This year it gave three blooms which look like a taller, stronger *cyclamineus*. Since I can't keep *cyclamineus* either, I hope this will prove to be a good grower.

Wee Bee × Lilliput (73-11) gave a series of flowers intermediate between the parents. Most are varying shades of yellow trumpets, but one, 73-11-18, is a bicolor with good form and much the best perianth I've seen on a mini 1 W-Y. It is a slow increaser, as there is still only one bulb. The series begins blooming here almost two weeks later than Wee Bee, along with Lilliput.

Bagatelle × Mustard Seed (73-13) has given two flowers which measure in Division 2. If the weather is right, 73-13-2 has a deeper yellow—almost orange—edge to the cup. This is the only cross I have with Mustard Seed. I had a bulb of *minor* × Mustard Seed, but have since lost it.

Lilliput × *minor* (73-15) is another cross that took eight years to bloom, but this year did give some flowers with whitish perianths.

Colibri op (73-31) this year for the first time gave one starry lemon bloom whose only redeeming feature was that it measured Division 2.

Once upon a time, as the fairy tales begin, I had Candlepower. Fortunately I used its pollen on several blooms in 1975. This year several blooms from Kibitzer × Candlepower (75-3) bloomed, and one was a small whitish trumpet, and the other was a small yellow trumpet. Both blooms were smaller than Wee Bee, Little Gem, Bagatelle, etc.

The problem with breeding miniatures is finding suitable material with which to work. If you can grow and bloom the species, by all means use them. Many hybrids on the Approved List of Miniatures are sterile and crosses between mini's and standards often give blooms too big to class as miniatures. With the long blooming season of miniatures, it may be necessary to store pollen of early bloomers for later use. Baby Moon sets open pollinated seed. Why not save pollen from an early bloomer and use it on Baby Moon—or try the pollen from a smallish poet on it. But with the placement of Baby Moon's stigma, I'd suggest de-anthering in this case.

Do try a few crosses of your own. It's fun—and nothing quite matches that feeling of anticipation when you see the first bud on one of your very own seedlings.

MR & MRS P R MOORE JR
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